MEDICAL COLLEGE OF GEORGIA

TODAY

Volume 29, Number 4 Summer 2001

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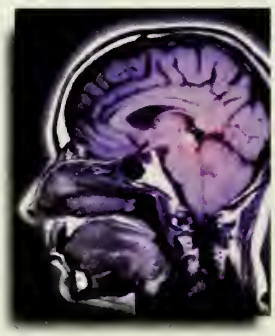

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MEDICAL COLLEGE OF GEORGIA

TODAY

MCG President Dan Rahn's commitment to excellence extends beyond the confines of the Medical College of Georgia campus. It extends to his commitment as a husband, father, physician, pianist, churchgoer…to every aspect of his life. As you'll learn in this edition of *Medical College of Georgia Today,* Dr. Rahn (pictured on the cover with his family) moves seamlessly from one role to the next. It feels natural to him. After all, his dedication to his family is an extension of his dedication to his church, which is an extension of his dedication as a caregiver…et cetera, et cetera. We invite you to read about his many roles, and how they all enhance his ability to preside over Georgia's health sciences university.

We also invite you to read about MCG's new midwifery program, which combines the best of technology with the warmest of touches. MCG is continually seeking new ways to offer second-to-none health care in a nurturing environment. We think you'll agree that the midwifery program exemplifies this ideal.

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AT A GLANCE

Protein-Analyzing Lab

Now that the human genome is mapped, the next step is determining the proteins genes make and how they may be targets for better diagnosing and treating disease.

"The level of the protein is the ultimate expression of the gene," said Dr. Terrance A. Stoming, molecular biologist and director of the Medical College of Georgia Molecular Biology Core Facility, which recently obtained an Amersham core proteomics laboratory.

The facility, established at MCG by the Georgia Research Alliance, will help faculty identify previously unknown proteins and determine differences in protein expression in healthy vs. diseased tissue. They can then find drugs that inhibit proteins expressed, for example, in cancer tissue with minimal impact on healthy tissue, Dr. Stoming said.

The collaboration between the Georgia Research Alliance and New Jersey-based Amersham Pharmacia Biotech Technologies provides unprecedented access to proteins not only responsible for human disease, but those found in plants, animals and microorganisms as well, said Dr. Matthew J. Kluger, MCG vice president for research. "This laboratory facility is one of the first to be established in an academic medical center," Dr. Kluger said.

Proteins are involved in both healthy bodily functions, like digestion, and disease processes, perhaps including the spread of cancer, Dr. Stoming said. "You can take normal and cancerous tissue and isolate the proteins in both," he said. "If there are similar proteins [at extremely high levels] in cancer, they can serve as targets for drugs. If we can bind drugs to those proteins, we might be able to kill the cancer cells."

Fluctuating protein levels can be normal, so "the question remains whether protein changes in cancerous tissue or drug-affected tissue mean anything," Dr. Stoming said. But he suspects they may contribute to cancer metastasis.

The laboratory also will enable researchers to find the most effective drugs with the fewest side effects by looking at the impact of the drugs on proteins in organs such as the liver, a "powerhouse" for metabolism, Dr. Stoming said.

Dr. Terrance A. Stoming (left) with Dr. Robert Yu, director of the MCG Institute of Molecular Medicine and Genetics

Paperless Practice

Greenway Medical Technologies has donated more than half a million dollars' worth of computer hardware, software, services and support to help Medical College of Georgia health information management students learn how to manage a paperless practice.

Greenway Medical Technologies, based in Carrollton, Ga., has provided the students with PrimePractice, its ambulatory software suite. The software follows a patient through each clinical, administrative and financial process within a physician's practice, according to Dr. Carol Campbell, chairwoman of the Department of Health

Information Management.

Students will use automation to schedule patient visits, register new patient insurance and demographic information, verify insurance eligibility, electronically document patient encounters, place physician orders and prescriptions online, initiate coding and billing, maintain fee schedules, post payments and manage accounts receivable, Dr. Campbell said.

"Our students are entering an industry where understanding technology's application in providing better care is critical to their career success," Dr. Campbell said. "The fact that PrimePractice truly represents the latest evolution in health management technology just makes this initiative even more valuable as the health care industry continues to contemplate different uses for the Internet."

Filling a Gap

Deanna Boney, Peggy Boyd and Rita Colwell decided recently that their experience as health care professionals was outgrowing the degrees they'd earned in their fields. They wanted to broaden their skills and knowledge base…yet they didn't want to interrupt their careers.

Enter the Medical College of Georgia. MCG's Department of Health Information Management began a new program in fall 2000 enabling licensed nurses and allied health professionals to earn a post-baccalaureate certificate in health information administration without putting their lives and livelihoods on hold.

The 11-month program offers intensive instruction in skills related to computers, management, information, leadership, human resources, performance evaluation, accreditation standards and legal matters related to the health field. Graduates are qualified to take the American Health Management Association's registration examination. Those who pass the examination earn the health information administrator credential.

Ms. Boney, Ms. Boyd and Ms. Colwell will become the first three graduates of the program when they complete their practicum this summer. Ms. Boney and Ms. Colwell are medical technologists; Ms. Boyd is a nurse. The skills they've learned are designed to enhance all their careers.

"It's a very well-rounded program for any health professional," Ms. Boyd said. She plans to stay in nursing, "but I needed to update my skills in information, management and leadership. I was looking for a more broad-based way of enhancing my nursing skills."

Ms. Boney is particularly interested in the technological aspect of the course. "I really felt I could integrate computers into my health care practice," she said. "I'd like to go into the computer field within the health care arena, something like computerized medical records."

The program's graduates will help fill a significant gap in the health care industry, according to Jim Condon, MCG health information management program specialist. "There is a growing demand for multi-credentialed health care professionals and an unmet demand for health information professionals," he said.

Help for the Homeless

When Ricky Joseph thinks of a homeless person, he thinks of a college-educated soccer mom who lived a middle-class lifestyle until her husband abandoned the family. Or he thinks of a highly skilled chef who earned a wonderful living in New York City but found his skills unmarketable in Augusta.

He knows these people personally. And he knows that stereotypes don't apply.

"Some of the most interesting people I've met also happen to be homeless," said Mr. Joseph, an assistant professor in the Medical College of Georgia Department of Occupational Therapy. "They're not who you think they are. Most of them have high school educations. Some are college-educated."

Mr. Joseph, who joined the MCG faculty two years ago after a 23-year Army career, volunteers for the Interfaith Hospitality Network of Augusta Inc., a non-profit organization supported by area churches that offers temporary housing to the homeless. But more than providing shelter, the organization provides the means to stand on one's own two feet again. "We work on helping the homeless make a successful transition back into the community," Mr. Joseph said. "And it works. I've never seen one of our families come back."

That success is due largely to people like Mr. Joseph, who teaches a weekly, 90-minute course on practical life skills. "I cover everything from budgeting to problem-solving to communication skills," he said. Mr. Joseph noted that his classes are natural extensions of his career, which helps people maximize their abilities and work around their disabilities so that they can live life to the fullest.

Mr. Joseph noted that his 90-minute classes often stretch to two hours or longer. "Sometimes, they have so many questions that I don't want to leave. I never leave thinking this is hopeless. They're always willing to listen."

A MA

The tiny, blue-collar town of Stroudsburg, Pa., was a child's friend.

With a lawnmower, Dan Rahn, his big brother, Ned, and their friends transformed an empty neighborhood lot into a baseball field. The long, dark winter turned the pond into an ice-skating rink. The brothers cut a path through the woods, even built a bridge over the creek, so they could walk to school in just five minutes. They played ping-pong and shuffleboard in the public playground, softball and baseball on the Little League field. They swam in the town pool.

It was life: perfect in some regards and not so perfect in others.

Their parents, Cherry and Ed, loved their boys and their youngest, Jenny, and always wanted more for them than the high school education they received. Ed was an electrician who, like so many of his peers, enlisted in the U.S. Navy during World War II. He was later recalled during the Korean conflict. He'd just come home from his second war and was busy painting his family's new house when he fell through the rungs of a ladder, crushing his heels and landing in a wheelchair where he was told he would stay.

"We lived on the charity of the church and the Veterans of Foreign Wars for almost a year, and then he was able to get up and get going again," Dan Rahn says. Their father would experience periodic health problems for the rest of his life. "My mother went back to work during those periods of time. She held the family together."

The brothers held each other together as well. "I think my brother and I grew up at a young age because when you are in difficult circumstances, you either triumph or you cave. We decided we weren't going to cave," says the now 51-year-old husband, father, physician and seventh president of the Medical College of Georgia.

Dr. Rahn had traveled no farther than New York City and the New Jersey shore until, at age 16, the naturally athletic teen went to a ski camp on a glacier in the northern Rocky Mountains. "I realized there was a big world out there; it absolutely changed my life." His intelligence and talent transported him from Stroudsburg to Yale University, where he got a music scholarship.

It was turbulent 1968 when he moved from small-town U.S.A. to an international student body. Brother Ned dropped him off at school and the affable Dr. Rahn decided to start mingling. "I saw this guy reading *Atlas Shrugged* by Ayn Rand. I said, 'Hi. I'm Dan Rahn,' and he said, 'So what?'" Thus began life at Yale…but within a month, he had begun to thrive in the environment, once again augmenting his natural abilities with hard work.

Physics seemed a likely major for him; he enjoyed causation, science and solvable problems. "I'd had this struggle for structure in my life. As a young kid, I felt I was in a situation that couldn't be managed no matter how hard I worked at it. I think I was attracted to areas I could manage."

WITH A MISSION

Toni Baker

By his junior year, he was considering a profession that constantly seeks answers to pretty tough questions. As was the case when he started college, he had no idea what medical school would entail. But he believed that with hard work, he could do it.

Still, something about Stroudsburg kept calling him home. Her name was Lana Marie Joyce.

"Lana is a very genuine person, a straightforward person yet shy," says the man who clearly loves her. She and Dr. Rahn married in summer 1972. She was a research assistant at Yale, so he stayed there for medical school.

This man who seems the picture of confidence says he is comfortable with himself today, but that he hasn't always been. There were times as a medical student, a resident, chief resident in internal medicine and finally as a rheumatology fellow at Yale that he looked around and wondered how he got there.

"There have been times when I felt like an imposter...that feeling that you alone have slipped through the usually rigorous screening processes and now find yourself in a situation for which you are totally unprepared. Everybody else deserves to be there and you don't. The time that it really hits you is when you have patient-care responsibilities and you realize that no amount of hard work is necessarily going to translate into a good outcome."

He struggled as a young man to come to terms with those occasional, inevitable bad outcomes. "That was hard," he says. "That was hard."

But his profession also offered sweet inspiration. His mentors included Dr. Allen C. Steere, a rheumatologist who discovered Lyme disease, and Dr. John A. Hardin, a rheumatologist and MCG School of Medicine alumnus who joined the Yale faculty during Dr. Rahn's residency. Their pioneering studies of the immune system caught his fascination and helped Dr. Rahn settle on his future.

After his rheumatology fellowship, Dr. Rahn spent eight years in private practice in Guilford, Conn. "Guilford is a historic town with about 20,000 people. I took care of every single person in my neighborhood. I took care of the

Dr. Rahn at home indulging in a favorite hobby; he plays piano Monday nights for a 300-member Bible study group.

Episcopal priest, the minister of the Congregational church, the liquor store owner and the mayor. I made house calls. I sat at the bedside with elderly spouses and children while their loved ones died at home," he says.

He is grateful for those years, certain they made him a better doctor and man. But the schedule was grueling and he missed the stimulation of research. He returned to Yale in 1988, gaining his first experiences as a principal investigator, speaker, writer and administrator directing the faculty practice for the 200-member Department of Medicine. He helped build a management team and business structure with consistent performance expectations for all. "We created a structure that was understandable and could be applied uniformly. It kind of drove itself, once we implemented it."

Dr. Rahn's career was in high gear. With children Jason, Rebecca and Zachary rounding out the family, the Rahns seemed settled in for the long haul. Then, Dr. Hardin—the MCG graduate who was now Yale's chief of rheumatology and Dr. Rahn's boss—was offered a position as chairman of the MCG Department of Medicine and wanted Dr. Rahn as his vice chairman. "Without skipping a beat, I said, 'John, I love you dearly. Go if you must. But that's really not in my life plan.'"

But his boss persisted and when Dr. Rahn came to MCG for a daylong visit, his life plan changed. "I was really struck by the mission of the institution, its clinical and educational heritage, its importance and its potential."

In 1991, Dr. Rahn and his family came to the Medical College of Georgia.

He has served many roles at Georgia's health sciences university: vice chairman, program director for the Internal Medicine Residency Training Program, chief of the Section of General Internal Medicine, director of the Center for Healthcare Improvement and vice dean for clinical activities for the School of Medicine.

In 1999, he was named medical director for the university's clinical system and became senior vice president for medical affairs and chief medical officer for MCG Health, Inc. last July when the not-for-profit corporation took over management of the clinical system.

As the clinical operation was changing management hands, the chancellor of the University System of Georgia was announcing search committees to help identify a successor for retiring President Francis J. Tedesco. The first call Dr. Rahn got from the search firm said he was on a long list of candidates; it was when he learned he was among the five finalists that he began to realize the job could be his. His first thoughts were of his family: Would this mean even less time with them? "We talked it through and decided if called, we would do it."

March 5, 2001, Ned Rahn, a Philadelphia lawyer, called to wish his brother a happy birthday. Two days later, the brother he describes as intellectual, curious, hard-working and caring was named president. "I have not been surprised by anything [Dan's] accomplished, quite frankly," Mr. Rahn says. "It's a great honor, but nothing has been handed to him; he has worked for it."

Dr. Rahn's mentor, Dr. Steere, echoes the sentiment: "Dan was clearly a leader.

It makes perfect sense to me that this has happened."

In the final weeks before assuming the presidency, Dr. Rahn was preparing for this role as he has for all his others: by listening, learning and working. He does not intend to do the job alone, but as part of a team that empowers the faculty and staff.

"I think the role of senior leadership is to preside over the development of the strategic plan, prioritize, match resources to those strategies, articulate the mission and clear the barriers," he says. "I said to alumni [recently], 'I think the faculty and staff are the ones who do the work. They are the ones who are going to accomplish the missions.' The LCME saw that," he says of the Liaison Committee on Medical Education which recently awarded full accreditation to the School of Medicine.

"They saw the confidence that the core missions are going to be accomplished uninterruptedly, that we will get the job done. We should take that to heart. During the time of an interim dean, interim president, interim almost everything, the LCME came in and said, 'The medical education program is fine.'"

Ensuring the continued quality of MCG's educational programs is a high priority. As president, he will appoint deans of Allied Health Sciences, Dentistry, Medicine and Nursing, and within all five schools are numerous other key positions to fill. "I believe we must be patient and hold out for excellence," he says. "If you look around the country, this is a great place to be coming." He also wants to ensure that MCG's student body closely reflects the diversity of the state of Georgia.

Increased research activity is on the agenda as well. "It's a wonderfully exciting time; the time from discovery to implementation is getting progressively shorter," he says. The plan for building research is already is in place, developed largely by Dr. Matthew J. Kluger, vice president for research, and the Biomedical Research Council. "The plan links to centers of excellence planned on the clinical side—such as neurosciences—and provides the opportunity to recruit physician-investigators,

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Dr. Rahn and Georgia Sen. Charles Walker were among the representatives welcoming Georgia Gov. Roy Barnes to Augusta during a visit in May to assess the city's suitability to house one of the state's three designated cancer centers.

which is our greatest shortage," he says.

In the area of patient care, he believes the clinical system needed the operating flexibility it gained July 1 to support education and research at the university. And, while it's no longer the job of the president to direct the clinical system, it is his job to ensure that the intended purpose is accomplished. "We need to consolidate and stabilize the structural transformation that has occurred," Dr. Rahn says. "We need to solidify relationships between the health system, the Physicians Practice Group and the campus."

He says MCG also needs to solidify its role in the Georgia Cancer Initiative, designed to strengthen cancer prevention, detection, treatment and research in Georgia. The initiative includes the designation of three cancer centers. "This is clearly an extraordinary opportunity. It is clear that a major order of business is to preside over the academic component of the cancer initiative in Augusta and Georgia. We need to build collaborative research with the University of Georgia and, certainly in the context of cancer, with Emory University as well," he says.

Key to the agenda is the continued support of the alumni. "It will help us enormously if the alumni understand, support and feel good about the vision for the future of MCG, because they are strategically placed all over the state. They exert influence wherever they are. They can help us in their own communities by representing MCG and its values so we can continue to recruit the highest-caliber students. They can help us financially as well. The state is never going to send enough financial support. They also can help us by communicating if they think we are not doing the right thing.

"Am I going to make mistakes? Yes. Do I have the knowledge to do everything in this job? No. Can I hold myself accountable? Yes. I can accept responsibility for a decision, but I want the decision to be a group decision," Dr. Rahn says. And once a decision is made, he wants to move forward. "That's probably when I'm the toughest. My patience with myself is limited when I don't, my patience with others is limited when they don't."

He wants to stay well-grounded through the work ahead, ever mindful of his family, his religion and the fact that he couldn't and wouldn't do the work alone. He hopes that continuing patient care—if only for one afternoon a week—and the medical mission work that has taken him across the world will help keep him steadfast as well.

"I want the people who work here to be engaged in meaningful work and have a high level of professional and personal satisfaction out of what they put into their efforts for MCG. I want this institution to be able to accomplish its purposes for the state of Georgia which are, at a very basic level, to improve the health of the people of Georgia."

A New Source of Cells?

Toni Baker

It was a 'no cell' zone.

Yet as Dr. Paul Sohal studied a chick embryo's neural tube—a simple structure that builds the infinitely complex brain and spinal cord—he kept finding cells where cells should not be. Hard as it was to believe, he saw what he thinks is the first new source of cells identified in the embryo since 1868.

He saw cells leave this centralized tubular structure, fan out and ultimately become a part of every type of tissue in the body. He saw cells that he believes may be very young stem cells, the mother of all cells. The cells were coming out of the bottom of the neural tube, where newly formed nerves were found, making their way along those nerves then out into the body.

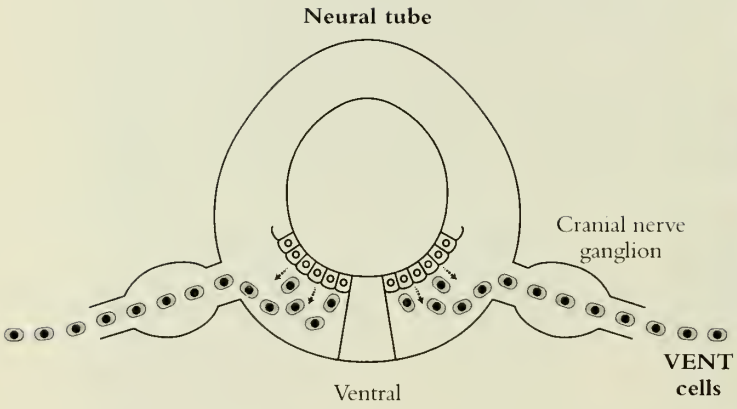
Traditional science and conventional wisdom has dubbed this a 'no cell' zone. Still, Dr. Sohal was intrigued by the seemingly endless potential of these cells he calls ventrally emigrating neural tube cells, or VENT cells.

"The only time real progress is made in science is when a new idea comes," he said simply.

And, boy, was this a new idea.

"People thought that the neural tube was committed to the single task of forming the brain and spinal cord," said the Medical College of Georgia developmental biologist. Dr. Sohal had spent the last 10 years studying the development of the neural tube, which is visible in the chick embryo by day two of life and in the human embryo by the third week of gestation.

The neural tube was his fourth area of study in 30 years as a researcher; every time he found himself making



The VENT cells originate from the ventral part of the neural tube.

lateral headway instead of vertical, he would lose interest and move on. "Science is mostly lateral," he said, but it's the big steps that cause a paradigm shift. And as he tagged the VENT cells so he could follow their activity, his thoughts were shifting.

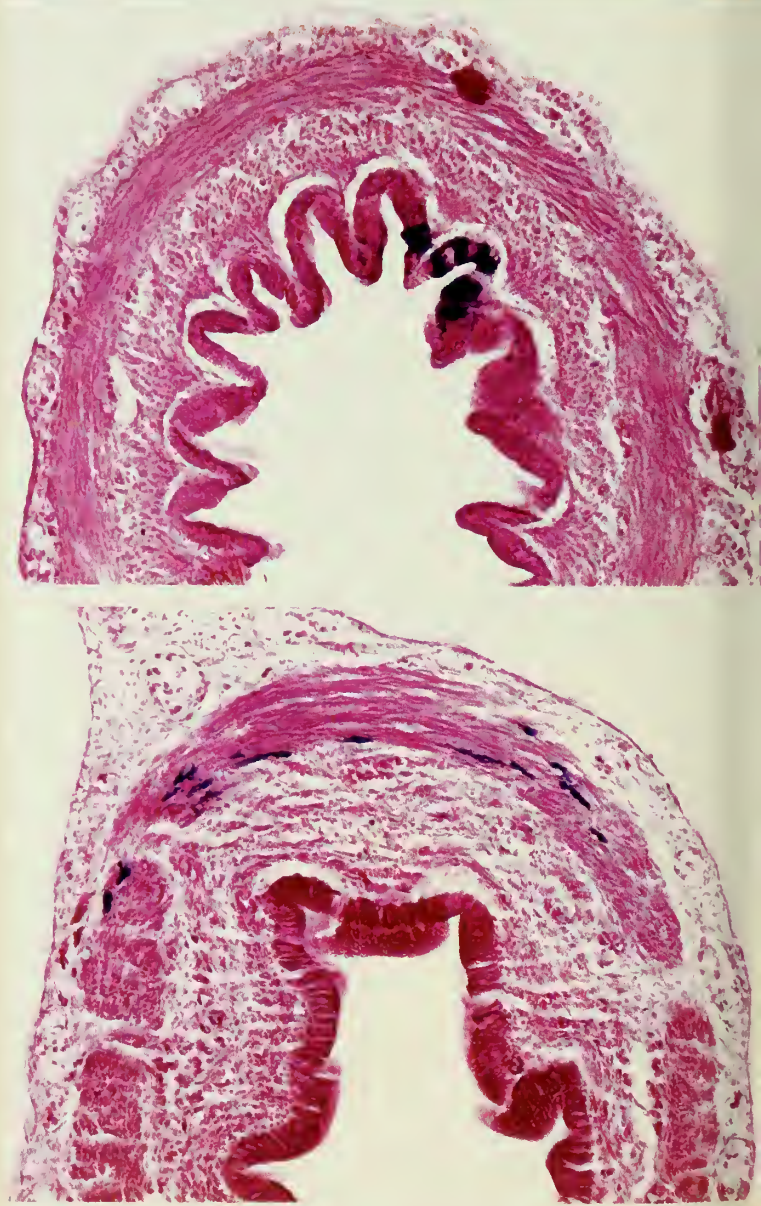
He initially speculated they were errant cells that didn't belong anywhere and would die. "But as we started following the fate of these cells, we found out, to our surprise, that they formed every tissue in the body. Our bodies are made up of four different types of tissue: nerve, muscle, connective tissue and epithelium. So far, no cell in the body was known to form all four tissues. These cells do," he said as matter-of-factly as if commenting on the weather.

Not that he wasn't surprised when he first caught sight of the cells nearly six years ago. "It's hard to believe that a significant source of cells in the embryo had not already been discovered." The fact that the cells seem to be essentially everywhere—the face, kidneys, liver, brain, bone and so on—made their previous anonymity even harder for Dr. Sohal to believe.

His resulting publications have drawn mixed, sometimes harsh, reviews; fellow scientists have done everything from challenge his work to shake his hand.

Dr. Carol A. Erickson, developmental biologist at the University of California, Davis, who reviewed Dr. Sohal's work at the request of *Trends in Neurosciences,* said she lies somewhere in the middle. "He's describing something that is very much of out of the mainstream; it's iconoclastic," said Dr. Erickson, who studies the migration and differentiation of neural crest cells. She also has seen signs of errant cells around the neural tube and doesn't doubt there are more cells leaving the neural tube than previously believed.

But she finds it hard to believe—from a develop-



Top: VENT cells in the gut

Middle: VENT cells in the gut epithelium

Bottom: VENT cells in the gut smooth muscle

mental and embryological perspective—that the neural tube is involved in a regulatory mechanism whereby it could populate so many different tissue types, such as the liver, heart and face, with so many cells.

So Dr. Sohal's findings need to be repeated by others—something he welcomes—and his approaches, such as labeling methods, need to be checked and re-checked, she said, to validate the existence and potential of VENT cells.

"He needs to show that you can isolate those cells from the neural tube and get them to differentiate into all these different cell types," Dr. Erickson said.

Dr. Sohal doesn't disagree. While acknowledging the difficulties and frustrations of the "mind-boggling" concept, he forges on. With 26 years under his belt at MCG, Dr. Sohal even declined a tempting early-retirement package offered by the university two years ago.

Instead, with funding from the National Institutes of Health, he is pursuing the purpose and meaning of the cells. "We can prevent some of these cells from migrating into certain tissues and see if [those particular tissues] are the only ones affected. If these cells don't get to tissue, we expect tissues not to develop normally," he said.

Does that mean some common congenital anomalies are directly related to the lack of VENT cells? He also wants to add VENT cells to the mix; is the result bigger bodies and bones?

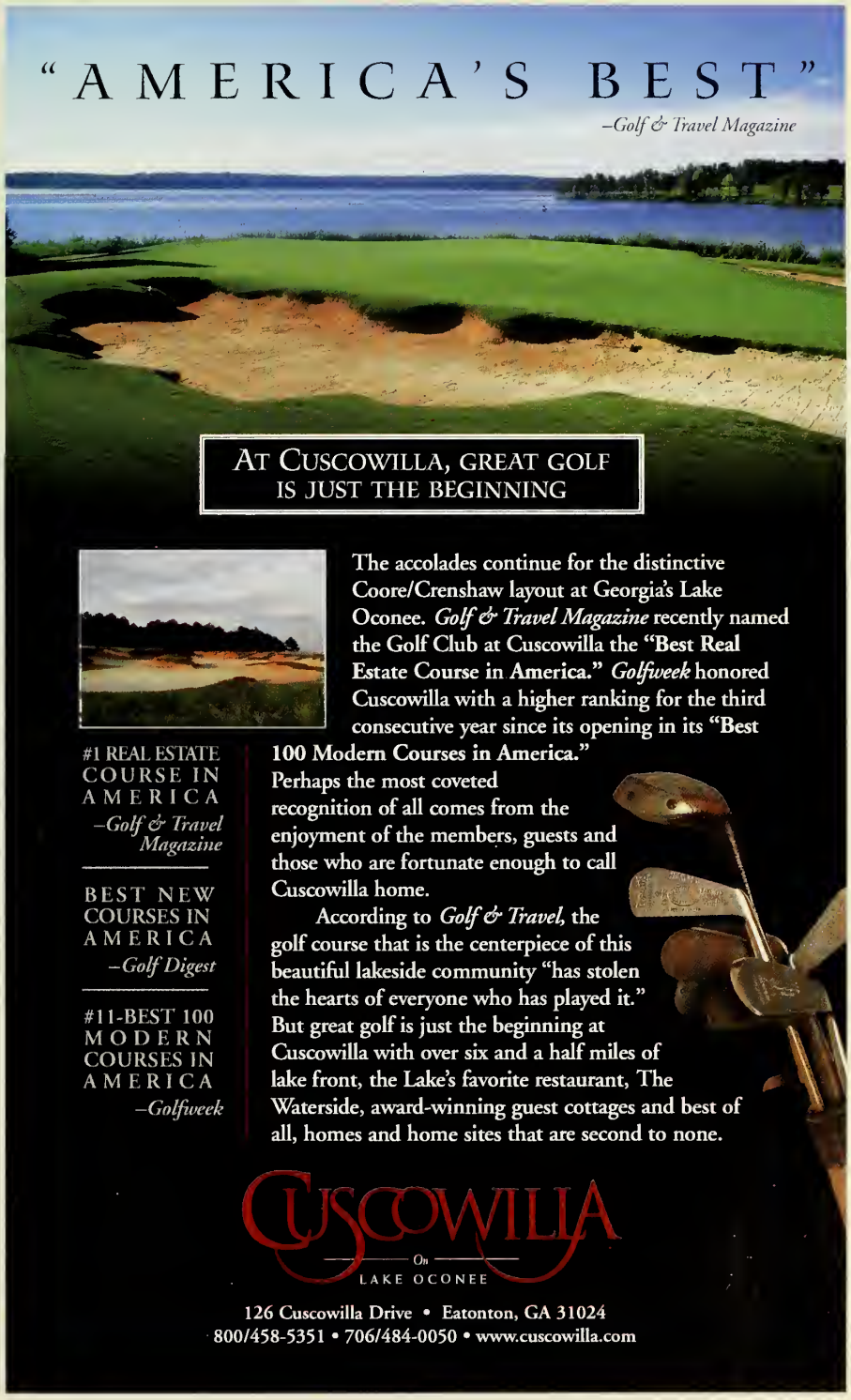
"For us to understand any of the biological processes of disease or repair and regeneration of the body, we have to know some fundamental things about cells: Where do they come from? How do they differentiate into a specific type of tissue? Once we have that knowledge, we can begin to ask questions. If something didn't form normally, what could have been the cause? Did the cells not get there? Are the cells sick? Was the environment bad? What sort of signals which operate normally were absent in the face of a congenital malformation?"

He believes that understanding these cells will require a fairly major shift in thinking. Much as the brain controls the developed body, Dr. Sohal thinks the migration of these cells suggests that the nervous system might control development as well.

"I think there is something in charge which is looking at all systems so that, at birth, everything comes together. We think the system that is going to control your body for the rest of your life starts controlling the development of systems from the very early stages."

This novel idea might help explain associated abnormalities, such as a Down's syndrome patient's abnormalities of the brain, face and heart, or a mentally retarded person's unusual gait.

As for his colleagues' acceptance of the somewhat overwhelming possibilities, he says to give them another year.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The accolades continue for the distinctive Coore/Crenshaw layout at Georgia's Lake Oconee. Golf & Travel Magazine recently named the Golf Club at Cuscowilla the "Best Real Estate Course in America." Golfweek honored Cuscowilla with a higher ranking for the third consecutive year since its opening in its "Best 100 Modern Courses in America."
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KEEPING HOPE ALIVE

Christine Hurley Deriso

As a young child, Dr. Stephen Hsu assumed he would follow in his parents' footsteps by studying hard, earning an advanced degree, pursuing a challenging profession and raising his own family.

Amazingly, Dr. Hsu, a cell biologist in the Medical College of Georgia Department of Oral Biology, is living that dream today. He never lost sight of it, even when his childhood transformed overnight from an idyllic existence to the bleakest nightmare he could ever imagine.

Dr. Hsu (pronounced "shoe"), his sister and his parents—an economist and an architect—were an affluent, close-knit family in Beijing, China when the Cultural Revolution upended their lives in 1966. The revolution, a 10-year experiment in creating an egalitarian society by uplifting the poor and stripping the affluent of their wealth, ended life as they knew it for millions of Chinese.

Dr. Hsu's family was forced to surrender every asset to the government and expelled from the capital city, Beijing, to the central city of Wuhan. His New York University-educated father was ordered to perform menial labor in a factory, earning a meager salary and living apart from his wife and two small children except for brief, biweekly visits. Dr. Hsu, his sister and mother were moved into a one-room hovel and provided subsistence-level rations of food served in a communal cafeteria.

"I was very frustrated that everything had been taken from us," recalls Dr. Hsu. "There was no joy. We were called capitalist puppies—little dogs. In China, calling someone 'dog' is extremely offensive. I wondered what we had done wrong to be stripped of everything."

Dr. Hsu and his sister were allowed to continue their schooling, but virtually every educated person in the country was persecuted, so the school was managed by peasants and soldiers who taught nothing but loyalty to the new communist regime.

"Whoever had knowledge was punished, so we had no real teachers," Dr. Hsu says. "School was like a formality. We learned nothing. We just played sports or fought with each other."

He couldn't imagine that life could get worse…yet it did. After completing ninth grade, "I was told I wouldn't be able to go to high school because of my family's (educated) background," Dr. Hsu says.

He was wrenched from his family and trucked to a labor camp on an isolated mountain. Dr. Hsu and other young boys—most the sons of intellectuals—were forced to farm the land and create their own food and lodging. "Before we built shelter, we had to live with the water buffaloes," he says. "We cleaned out the manure to make space for ourselves. In the beginning, there was no electricity, no heat, no water, no nothing."

The boys worked 18-hour days, building a dam and growing rice, vegetables and tea leaves. Dr. Hsu vividly remembers standing waist-deep in a rice paddy with sweat pouring from his brow and leeches digging into his flesh. The boys drank water from the same streams in which the water buffaloes and pigs bathed, so diarrhea was constant. "I still have intestinal problems," Dr. Hsu says. "My system was completely messed up. There was no hospital and there were no medicines."

But no matter how ill the boys were, work was mandatory. "The communist leaders were in charge, and we could not say no," Dr. Hsu says. "If we resisted, we were in trouble. We just tried to take life one day at a time."

Despite their misery, friendships managed to take hold. "We tried to care for each other," he says. "But many of my peers lost their hope. They thought, 'My life is all screwed up.' At least one committed suicide."

Dr. Hsu was determined not to lose his own tenuous grasp on optimism. "I never let hope die," he says. "I told myself, 'No matter what happens, I'll make it. I'll survive. I will reach my goal.'"

As years passed on the farm, Dr. Hsu clung to happy memories of his early childhood—his loving family, comfortable home and unlimited potential. As painful as the memories were, they were his only link to the life he hoped to one day reclaim. "I believed I could succeed, if given a chance."

Today, his life has come full circle. Instead of growing tea leaves in a labor camp, he is studying green tea's anti-carcinogenic properties.

Then, one day, like an oasis in the desert, his chance materialized. In 1976, the Cultural Revolution sputtered to its demise. As abruptly as it had begun, it was over. No more labor camps. No more persecution. No more sleeping with water buffalo or sharing the same filthy water. No more leeches in the midst of sweltering rice paddies. Dr. Hsu was free to return to his family.

He was still a child when he'd left them, but he returned a young man. His family was penniless, but they were together and, somehow, hope had endured. Dr. Hsu's top priority was to resume his education. His family and nearby teachers began tutoring him in their limited spare time, but he'd lost so much ground over the years that the effort seemed futile.

"I didn't even know the alphabet," Dr. Hsu says. "I had no knowledge of math or science. But I could read and write, so I began educating myself."

A year later, he took the college entrance exam…and failed. Undeterred, he redoubled his efforts, studying every waking moment that he wasn't working. In 1978, he took the exam a second time…and passed. He immediately enrolled in Wujan University. "Finally, I was out of the farm and a university student," he says. "I was in shock. From then on, it was a 180-degree change."

He earned a degree in biochemistry, then came to the United States for graduate work. He didn't speak English, but no obstacle was too daunting to stand in his way. He studied English as a second language in Iowa, then enrolled at Montclair State University in New Jersey, where he earned a master's degree and lived with an uncle. By the time he enrolled in the University of Cincinnati School of Medicine in 1985, he had such an impressive academic record that he was awarded a scholarship. He earned a Ph.D. in cell biology in 1991.

Today, his life has come full circle. Instead of growing tea leaves in a labor camp, he is studying green tea's anti-carcinogenic properties. (See *Wellness in a Cup,* page 14) He has moved his parents to Augusta, and his sister lives with her family in New York. Dr. Hsu's wife, Tracy, is expecting the couple's first child this fall. "Everything is wonderful," he says simply.

With his easy smile and warm personality, Dr. Hsu seems astonishingly unscarred by his past. Yet he admits he harbors bitterness, not on his own behalf, but on behalf of the boys who never overcame the degradation and privation they endured in the labor camp. Most, Dr. Hsu notes, resigned themselves to lives of poverty and hopelessness, even after the collapse of the Cultural Revolution. "I felt guilty that I was one of the fortunate few and left the others behind," he says softly. "I feel very sorry for those left behind."

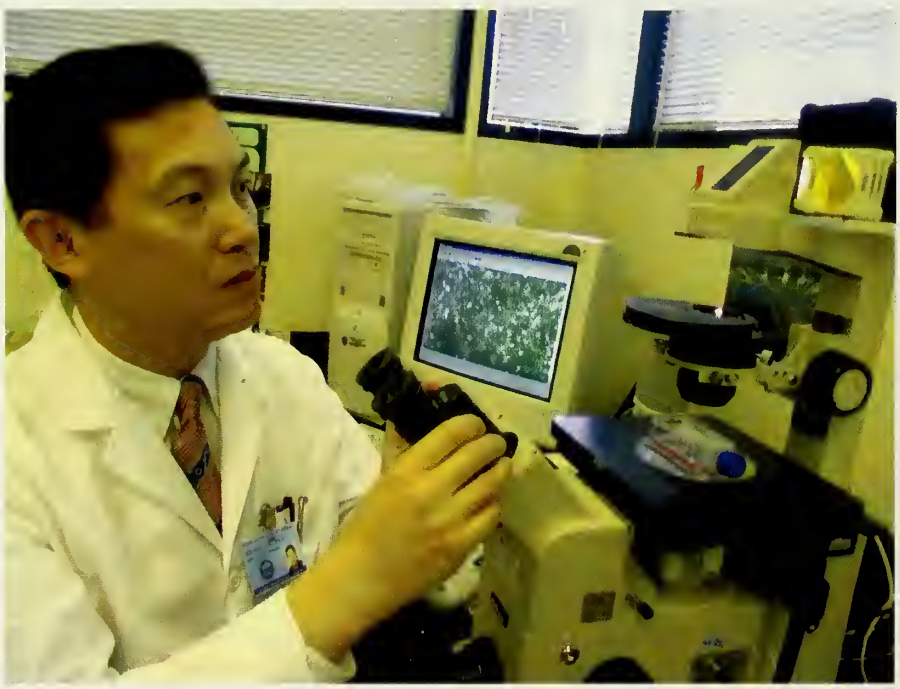
But the children of China today "have every opportunity," he says, which is all he wants for his own children. "I want my children to be whatever they want to be. They should work hard and reach their goals. They should value knowledge. Knowledge is very important."

Wellness in a Cup

Christine Hurley Deriso

Properties in green tea not only declare war on cancer cells, but they place healthy cells in a state of suspended animation to protect them from friendly fire, according to a Medical College of Georgia researcher.

Green tea unleashes P-57—a protein that helps regulate cell growth, said Dr. Stephen Hsu, a cell biologist in the Medical College of Georgia Department of Oral Biology. Elevated levels of P-57 suspend cell growth, "putting the cell to sleep," Dr. Hsu said. When P-57 levels return to normal, cell growth resumes.



In laboratory tests, Dr. Hsu has determined that this state of suspended animation protects healthy cells from annihilation while spurring the death of cancerous cells. "It's been found that green tea can cause cell death in many kinds of tumor cells," said Dr. Hsu. "The cells are killed quickly and specifically, and the healthy cells are left unharmed. We've found that P-57 is a major factor in how the normal cells are protected."

Researchers became interested in the properties of green tea when they noted that Asians—who typically drink green tea regularly—have much lower cancer rates than populations that don't. Dr. Hsu helped determine that compounds in the green tea called polyphenols help eliminate free radicals, which can combine with DNA to cause cells to mutate. The next stage of his research helped explain why healthy cells are unharmed in the process. He discussed his findings about P-57 last March in Chicago at a national meeting of the International Association for Dental Research.

Dr. Hsu specifically has studied cancerous cells from the mouth and cervix; his laboratory slides provide dramatic evidence that a single drop of green tea can, within hours, wipe out a large percentage of the cancerous cells. The effects peak at about six hours and may last up to 12 hours, so he recommends drinking a cup of green tea every few hours, particularly for those at high risk of cancer because of smoking or other steady exposure to carcinogens.

"Drinking a couple of cups of green tea a day isn't hard to do and might prevent [some forms of] cancer," he said.

Black tea, the kind most commonly consumed in the United States, lacks the potent anti-carcinogenic properties of green tea because polyphenols are oxidized, or neutralized, in black tea during the fermentation process, Dr. Hsu said.

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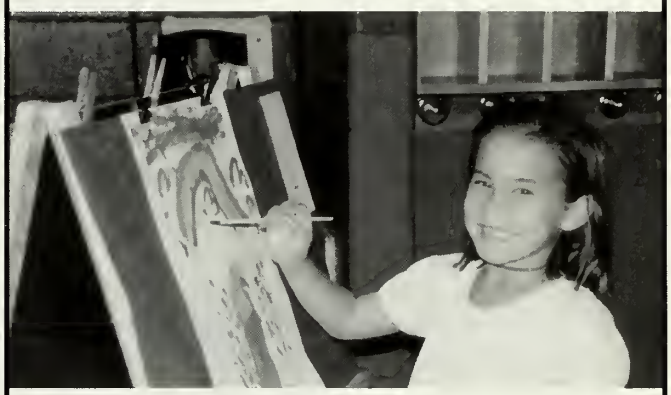

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Woman to Woman

Karen Shipp

Two women sit on a bed in a softly lit room. One moans deeply, her abdomen swollen with an unborn baby. The other woman comforts her, sometimes talking in low tones, sometimes saying nothing at all. They are joined in a camaraderie that is as old as mankind, as one woman helps another woman give birth to a child.

This scene is unfolding at MCG Hospital, where Dr. Jane Blackwell, a certified nurse midwife with a Ph.D. in nursing science, is caring for a patient who went into labor this morning.

Music plays softly from one corner of the room. Calming herbal and floral scents fill the air. Dr. Blackwell helps the mother move into a kneeling position so they can better manage the latest wave of contractions. Dr. Blackwell glances at the clock. The contractions are coming four minutes apart now. The patient is 8 centimeters dilated. She'll need to start pushing soon. Dr. Blackwell uses a massage technique to ease her tension. Together, the midwife and mother-to-be work through the pain, receiving it, managing it, releasing it.

"Childbirth is a natural process that a woman's body is beautifully designed to do," Dr. Blackwell says. "For women with low-risk pregnancies, technological intervention is unnecessary. There's no reason why having a baby cannot be a joyful experience that families can share."

Just outside the sanctuary of this special delivery room are the bright, fluorescent-lit hallways of MCG Hospital. At MCG Health*Care,* midwives are supported by some of the most experienced and highly trained obstetrician/gynecologists in the country. Midwives manage most pregnancy complications, but those beyond their framework of practice can be referred to maternal-fetal medicine specialists.

"The technology is available if complications arise, so our patients have the best of both worlds," Dr. Blackwell says.

It was this combination of personalized care in a hospital environment that attracted Rebecca Davis, one of Dr. Blackwell's patients, to the program. Having endured a long labor and difficult delivery with her first child, Mrs. Davis wanted to explore other childbirth options when she became pregnant again a year later. "I wanted someone there as a support person throughout my pregnancy and labor," Mrs. Davis says.

John and Rebecca Davis with newborn Carlton

She began making regular visits to MCG midwives early in her pregnancy to monitor her health and the baby's development, and to discuss plans for the delivery. "We developed a relationship with the midwives," says Mrs. Davis. "It was so nice to go into the birth experience having someone there by my side whom I had come to trust."

Initially, she and her husband had a lot of questions about midwifery. "I think there is a myth that midwives will only assist with completely natural childbirth," Dr. Blackwell says. "Actually, we specialize in supporting the woman's body in doing what it was designed to do. Our main desire is to support the family in creating a birth plan that is designed by them."

In Mrs. Davis' case, the midwives recommended inducing labor when her due date passed; the baby was larger than her first, and Mrs. Davis' difficult first delivery raised the risk of difficulty with the second. Certified nurse midwife Naomi Richardson spent an hour answering the Davis family's questions and addressing their concerns. "She wanted to make sure that it was what I wanted to do," Mrs. Davis says. "They really let me be a part of the decision-making. I appreciated that so much. I felt like I was a partner in my health care."

Mrs. Davis opted for anesthesia during labor and delivery, which she supplemented with breathing techniques the midwives had taught her during her pregnancy. The midwives work with each mother to determine the pain-management and relaxation techniques they prefer, including acupressure, hot oil massage, music and aromatherapy. MCG plans to soon equip three special birthing rooms with Jacuzzis and a tub for water births.

The midwives respect mothers'

preferences in all other aspects of the birthing process as well. For instance, a simple mirror enhanced the Davis family's experience.

"When Rebecca was in labor with [our first child], the delivery team kept saying, 'It's coming...we can see the head.' But Rebecca couldn't see anything," says her husband. "When you're pushing and pushing and three hours later the baby hasn't arrived, you lose confidence. I think being able to see the baby's head this time helped her."

His wife agrees. "By having the mirror, I could watch as I pushed and see some results. The head was right there."

Dr. Blackwell varied Mrs. Davis' position during labor to ease the baby's passage through the birth canal and minimize trauma to the mother's tissues. And because Mrs. Davis had used perineal massage—a technique the midwives taught her—during the weeks leading up to delivery, the baby's birth didn't require an episiotomy.

"When baby Carlton finally arrived on the scene, he brought along some last-minute complications. "Carlton was born with the umbilical cord wrapped around his neck and meconium covering his face," Mrs. Davis says, her voice lowering a bit.

"But Jane immediately called for a pediatrician," Mr. Davis interjects. "She quickly removed the cord and started aspirating the baby's nose and mouth so he wouldn't draw meconium into his lungs."

"I didn't know exactly what was going on," Mrs. Davis recalls. "Jane was intently working and I was asking if everything was OK. She continued to work, but said, 'Everything's fine,' and that was the truth. Everything *was* fine. His Apgar was nine."

Sitting with their day-old son, the couple expresses their delight with the decision to have a midwife deliver their second child. "They were there to answer all my questions in detail and reassure me," Mrs. Davis says. "It was just the total package. And I think when you have a wonderful birth experience, it makes it easier to bond with your baby."

Her husband concurs. "She was more relaxed. She was more confident. Because of that, I think the baby was a lot less stressed out after he was born than our first child was."

MCG certified nurse midwives Dianne Vanfossen (from left), Jane Blackwell, Naomi Richardson

The midwives bring this patient-oriented, family-centered approach to all their services, including Pap smears, physical examinations, menopause counseling, contraception counseling and general health care support.

MCG midwives are particularly attentive to one of the most vulnerable age groups: girls younger than 18. "It is difficult to find developmentally appropriate care programs for [these] girls who become pregnant—only routine adult prenatal care," Dr. Blackwell says. "That is tragic when you consider the rate of recurring pregnancies among this age group is 80 percent in Georgia." The midwives are developing an outreach program to provide education and health examinations for this age group.

Dr. Blackwell considers her role as a midwife to be a natural extension of an age-old calling. For centuries, midwives were revered for their wisdom and compassionate care. But by the turn of the century, the profession lost popularity in the United States as physicians began delivering most babies. In the mid-1950s, however, midwifery began to resurge. Now, hundreds of thousands of babies are delivered by midwives each year in the United States. As midwifery continues to grow in popularity, Dr. Blackwell expects more nurses to specialize in this area. "What attracts women to midwifery is the opportunity to truly make a difference in women's lives," she says. "Midwives want to raise women's health care to a higher level, and we do this by truly connecting with our patients."

Shortly after Carlton's delivery, Dr. Blackwell is back in the delivery room. With her help, a mother gives birth to a beautiful, 6-lb., 3-oz. baby boy. She places the baby in the mother's waiting arms, then lingers briefly, making sure that mother and baby are doing fine. She savors the moment that makes all the long hours and early-morning calls worthwhile. True, it's Mom's moment. But she's privileged to share it.

An Expanded Vision for Women's Health

Karen Shipp

MCG Health*Care* has significantly expanded the scope and breadth of services available for women over the last few months. In addition to the MCG Health*Care* Nurse Midwives of Augusta, new services—all of which complement MCG's clinical, educational and research missions—include the Gynecologic Cancer Prevention Center and the Augusta Area Reproductive Associates.

Gynecologic Cancer Prevention Center

This center, established in fall 2000, provides state-of-the-art treatment for women with cervical dysplasia and offers patient care and community outreach programs that emphasize disease prevention. The program, located within the MCG Cancer Center, consolidates the efforts of family medicine, gynecologic oncology, and obstetrics and gynecology.

Women are referred to the center by primary care physicians or gynecologists after an abnormal Pap smear. About 20 percent of women are infected with the human papilloma virus (the predisposing factor of almost all cervical cancers), and about 1 percent of these women will develop cervical disease, according to Dr. Daron Ferris, director of the center. Dysplasia is curable when treated effectively.

Dr. Ferris, known internationally for his diagnostic work in colposcopy and other methods of treating cervical dysplasia, is researching new preventive, diagnostic and treatment techniques, including potential vaccines against HPV 16 and 18, the strains of human papilloma virus most associated with cervical cancer. Another study involves fluorescence spectroscopy to quickly diagnose pre-cancerous and cancerous changes without the use of a Pap smear. Dr. Ferris also is evaluating a vaccine to treat moderate to severe cervical dysplasia.

Augusta Area Reproductive Associates

Reproductive endocrinology and infertility, a highly specialized area of medicine, is in increasing demand as people postpone having children until later in life. Augusta Area Reproductive Associates was formed last August, uniting the MCG Section of Reproductive Endocrinology, Infertility and Genetics with an established, well-respected private practice group in the Augusta area.

"In the past, there were two in vitro fertilization programs in Augusta," said Dr. Lawrence C. Layman, chief of the MCG Section of Reproductive Endocrinology, Infertility and Genetics. "Now we have merged together to offer the only program in the area and on a much larger scale than previously possible."

The group treats all aspects of infertility in men and women and offers procedures such as sperm injection for men with low sperm counts, ultrasound monitoring, ovulation induction, intrauterine insemination and reproductive surgery. The laboratory performs assays, semen analysis, sperm preparations and in vitro fertilization.

The practice is housed on Chaffee Avenue, a location that optimizes convenience and privacy.

The associates not only treat conditions related to reproduction, but conduct extensive research in the area. "The causes of ovulation disorders in women and sperm abnormalities in men are largely unknown. We hope to try to identify some of the genes that might be important for normal reproduction," Dr. Layman said, whose research is funded by the National Institutes of Health.

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Sensory Symphony

Christine Hurley Deriso

A Medical College of Georgia neurophysiologist is probing one of the body's most finely tuned systems: its balancing act.

Maintaining good balance—walking across a room without falling or tying a shoe without tipping over—may seem like a no-brainer, but nothing could be further from the truth, according to Dr. Raymond Chong, assistant professor in the MCG Department of Physical Therapy. The brain is the conductor of the sensory symphony that keeps the body on firm footing. The department recently has obtained computerized equipment and conducted research to help diagnose and treat balance problems.

Good balance depends on accurately processing input from the eyes, inner ears and proprioceptors (the sensory receptors for muscles, tendons and other tissue related to motion). The brain makes split-second calculations based on this input to determine how to move the body from point A to point B—for instance, how much to lengthen the legs' stride to step over a mud puddle, or how much force to put on a foot stepping off a curb. "Any problem anywhere in the chain can compromise good balance," Dr. Chong said.

To further complicate matters, the brain must not only juggle information from several different systems, but it must instantaneously determine the information's reliability. "Sometimes unreliable information creeps into the brain," Dr. Chong said. For instance, a

person standing still in front of a passing train may get the visual impression that he, rather than the train, is moving. A healthy person will override that impression; other sensory input will compensate for the miscalculation. But some people's brains, because of injury or disease, can't tune out unreliable information.

And even healthy people can thwart the system by over-relying on a single system rather than allowing the systems to work in synchrony, Dr. Chong said. Many elderly, for example, "tend to rely on their eyes much more than inner ears and proprioception," he said. "But when they are overly dependent on the visual system, they become unable to repress unreliable visual information."

The result can be a chronically unsteady gait and the risk of frequent falls.

Physical therapists have an arsenal of techniques, such as balance exercises, to help enhance balance control, Dr. Chong said. But different techniques target different sensory systems, so clinicians must know specifically where the system is failing to develop an effective treatment plan. The MCG Department of Physical Therapy's recently obtained computerized balance assessment system helps isolate the weak link in the system.

The system is a partially enclosed chamber connected to a computer. A patient steps into the chamber, dons a harness to prevent injury, then experiences a slew of balance-challenging conditions. During one point of the test, for instance, the wall of the chamber that the person is facing seems to rush toward his face. At another point, the floor moves unpredictably. "The ankle says you're not moving but the eye and inner ear say you're moving," Dr. Chong said. "The test provides sensory incongruity to determine whether the subject can ignore unreliable input [and maintain his balance]."

Each segment of the test is designed to isolate deficits in the visual, auditory and/or proprioceptor systems. "The advantage is that other sensory tests only tell us how a system functions in isolation," Dr. Chong said. "They don't accurately tell us which sensory system is not working properly. Research has shown that rather than simply testing whether a system is working well or not, it is more meaningful to know how the brain integrates all of this information while the person is doing a task."

Based on data derived from the computerized balance assessment system, health providers can develop a treatment plan specific to the patient's deficiencies.

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Or not. Dr. Chong noted that some patients manage quite well despite a deficiency. For instance, an elderly patient may have reconfigured his system so successfully that reliance on visual cues doesn't endanger his safety. "Lately, it's become a hot topic about whether you should try to return a patient to normal," Dr. Chong said. "There's even doubt over what 'normal' is. In many cases, the patient learns to compensate for a deficiency in an abnormal movement pattern, but that pattern is not detrimental to him. Maybe 'abnormal' works best for him."

Of course, other people's health and quality of life suffer from balance problems, in which case treatment is vital, Dr. Chong noted. Poor balance control, he said, can spur a vicious cycle: a person falls and fears falling again, so he becomes more sedentary, which impairs his fitness level, which makes him more prone to falling.

"A sedentary lifestyle can also lead to isolation and depression," Dr. Chong said. "We have to determine psychological, social and motivational factors, in addition to physiologic factors."

The school stresses such a holistic approach to its students. "We teach our students to look at the whole patient, not just a single system or a single body part," he said. "We take a very interpersonal approach."

He also believes physical therapy should be as enjoyable as possible. For instance, he recently studied adults age 65 to 75 to determine whether T'ai Chi, a Chinese martial art, could improve their balance. He and his colleagues found that balance was better in those participating in low-impact aerobic exercise combined with T'ai Chi than in those doing low-impact aerobic exercise alone. But virtually any physical exercise, he stressed, is a boon not only to balance but to overall health. "If you tax the body, it will become stronger," he said. "If you don't, it will maladapt."

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Let the IRS Pick Up Most of the Tab

The Internal Revenue Service recently issued new regulations regarding distributions from Individual Retirement Accounts and other qualified retirement plans.

Some things are unchanged; with limited exceptions, a 10 percent penalty still applies for withdrawals prior to age 59 and a half and minimum required distributions still begin the year after age 70 and a half.

Important changes relate to who is named a beneficiary of the plan. In the past, the amount of the required minimum distribution was determined by a calculation based on the age of any named beneficiary. Basically, this meant the best way to lower the required distribution (thereby reducing taxable income and maximizing tax-deferred growth) was to have a beneficiary younger than the participant–up to 10 years younger. This calculation is now the same for all beneficiaries, except if the participant's spouse is the beneficiary and is more than 10 years younger.

This is particularly good news for those who want to name a charity as a beneficiary of their IRA without adversely affecting their lifetime distributions. In the past, if a charity was named a beneficiary of just $1, the calculation used to determine the required distribution amount was the least favorable to the participant since a charitable entity was deemed to have an indefinite life expectancy. This negative impact of naming a charity a beneficiary has been removed.

What hasn't changed is something known as Income in Respect of a Decedent, or IRD. Simply put, this is any amount that would have been taxable income if received by the decedent before death. The most common source of IRD is retirement plans. It is an income item included in the estate for estate tax purposes and is subject to income tax when received by beneficiaries. The estate tax is not reduced by the fact that the retirement plan assets will be subjected to income tax upon receipt by the beneficiary. The effect of taxes on a bequest of IRA assets can be dramatic. The huge tax bite from retirement plans makes them one of the best sources for charitable gifts after death. One-hundred percent of the assets can be donated to a charity, avoiding all taxes. It's like having the IRS pay 77 percent of the gift. Consider the following example:

Dr. Smith's IRA left to children
(Assuming maximum marginal tax rates)

Value of retirement plan	$1,000,000
Estate tax payable (55 percent)	550,000
Income distribution from IRA	1,000,000
IRD deduction (only for federal portion of the tax)	-446.000
Taxable income	554,000
Federal/state income tax payable (40 percent)	221,600
Total estate and income taxes – 77.16 percent	771,600
Net to children – 22.84 percent	228,400

Even if an estate is not subject to estate taxes, it is important to consider retirement plans when evaluating assets for charitable giving. Let's review John Doe's case:

Mr. Doe has recently passed away, leaving only his children as heirs. He had $100,000 in an IRA and $100,000 in appreciated stock. He wanted to give $100,000 to the Medical College of Georgia Foundation and $100,000 to his children.

Mr. Doe had a charitable bequest in his will for $100,000 to the foundation and left the IRA to his children. This resulted in MCG receiving $100,000 and his children receiving $60,000. What happened? The children had to pay income tax of about $40,000 on the $100,000 IRA assets.

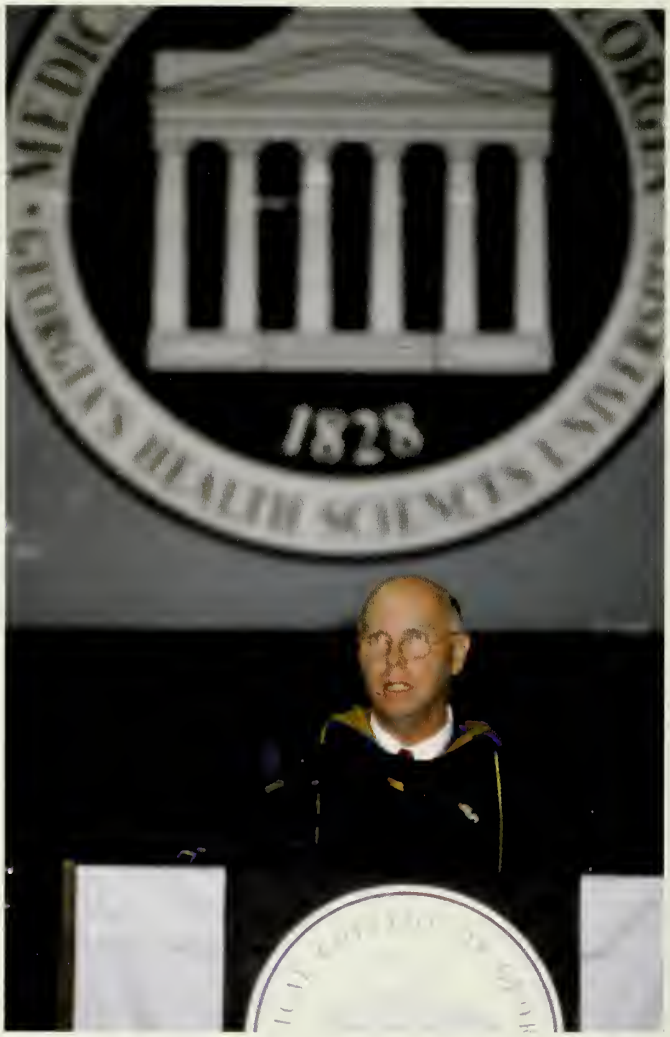
With one simple change, Mr. Doe could have passed the full $100,000 to both MCG and his children. Mr. Doe should have left the IRA to MCG and the stock to the children. The MCG Foundation can receive the IRA assets tax-free and the children will owe no income tax on the stock because the stock gets a new "stepped-up" basis as of Mr. Doe's death. Now, each receives the full benefit of the $100,000.

Of course, many more rules apply to federal tax law. Additionally, your specific retirement plan document may have more restrictive rules. You should always review your plan document and consult with your legal, financial and tax advisors when considering your IRA and other retirement plans.

To discuss how to maximize the benefit of your IRA and other retirement plan assets, call me, Troy Breitmann, at the MCG Office of Planned Giving at 1-800-869-1113, or e-mail tbreitma@mail.mcg.edu. To explore more tax-wise options for making gifts to MCG, visit the MCG Web site at www.mcg.edu and click on the Alumni and Friends link.

Graduates Urged to Be Risk-Takers

Christine Hurley Deriso



Few people know better than Dr. J. Craig Venter that there is more than one path to success.

As the Medical College of Georgia's 2001 commencement speaker, Dr. Venter described his youth as aimless, apathetic and academically lackluster. "I was literally adrift. I left home at 17 to devote my life to full-time surfing."

Yet within a few years, the self-described slacker had transformed himself into one of the most renowned scientists in the world, developing a strategy for gene discovery that simplified and expedited the quest to crack the human genetic code. On June 26, 2000, his company, Celera, announced that it had completed the first assembly of the human genome, an accomplishment that should revolutionize the understanding and treatment of disease.

Dr. Venter largely attributes his transformation to his service as a medical corpsman in the Vietnam War. "I saw things that no one should ever see," he said. "I felt powerless as I witnessed men my age and younger die." But amid the carnage, he was astounded by the resilience of the human body and the power of the human spirit. "I witnessed soldiers with wounds that should have killed them who survived through sheer determination," Dr. Venter said. "I came back from the war with a burning desire to change the world."

After the war, he earned a Ph.D. in physiology and pharmacology from the University of California, San Diego, and embarked on his dream to forge new ground and make a real difference in people's lives. "My main mantra has been to take reasonable risks in life and have the courage of my convictions," he said. Risk leads to discovery, he said, "and without discovery in the world, we will never progress."

He acknowledged the potential tedium and thanklessness of life as a researcher, particularly when the research defies convention. "In a short time, I went from being a relatively unknown scientist to being widely criticized by the some of the best scientists in the world," Dr. Venter said, recalling the skepticism and ridicule that accompanied his pursuit of a lightning-quick, computerized method to sequence the human genome. "I took on the government [which was pursuing a much slower method] and said, 'No. There is a faster and more efficient way.'"

He weathered the criticism because he believed in his work. "I learned that criticism and success often go hand in hand."

As groundbreaking as his work was, earning him a runner-up spot as *Time* magazine's 2000 Man of the Year, the results were more humbling than boast-worthy, Dr. Venter said. "One of the most humbling observations is that the human genome is composed of far fewer genes than we had imagined," he said. "We have only twice as many genes as the fruit fly. We

found only 300 human genes that don't have a counterpart in the mouse."

Yet those genes interact with such intricacy and precision that they have spawned music, art, medicine...all the elements that distinguish humans from other life forms. "We are clearly more than the sum total of our genes," Dr. Venter said. "We must work toward higher literacy and the wise use of our genetic heritage."

The learning curve, he noted, is massive. "I hate to tell you this on the cusp of your graduation, but your education has barely started."

Yet as health care providers and researchers work to incorporate new discoveries into their fields, they shouldn't forget fundamental tenets of good care. "The basic patient/doctor relationship should stay the same," Dr. Venter said. "Compassion, caring and listening can make a difference between life and death. One of the most profound experiences is to make a difference in another person's life. All of you will have that opportunity ever day."

Nursing Student Receives Beard Award

Christine Hurley Deriso

Lori Burton (far right), a 2001 graduate of the Medical College of Georgia School of Nursing, received the 2001 John F. Beard Award for caring and compassion in health care.

The $25,000 award is presented annually by William Porter "Billy" Payne and his wife, Martha, to a graduating MCG student who exemplifies altruism.

Mr. Payne, vice chairman of Atlanta-based Premiere Technologies, Inc., and former chairman of the Atlanta Olympic Organizing Committee, established the award in 1998 to memorialize his father-in-law, who died in 1997.

The award honors former MCG President Francis J. Tedesco and Mr. Beard's physician, Dr. Mark F. Williams, a 1988 graduate of the MCG School of Medicine. Dr. Williams treated Mr. Beard for cancer while on the faculty at MCG. Dr. Tedesco visited Mr. Beard twice daily during his lengthy stay at MCG Hospital.

Ms. Burton, who worked as a senior patient care assistant in the Children's Medical Center Hematology/Oncology Clinic while earning her bachelor's degree, was nominated by her clinic supervisor, nursing instructors, classmates, family members of patients she helped treat and a CMC patient. They cited Ms. Burton's academic excellence, strong work ethic, extensive volunteerism and unflagging compassion. Ms. Burton has volunteered for many CMC initiatives and for organizations such as the American Red Cross, Habitat for Humanity, the Leukemia and Lymphoma Society and March of Dimes.

"I am amazed at how Lori can handle multiple duties at once, and still provide care in a calm, unrushed manner. She always manages to find extra time for children who need special attention," wrote classmate and co-worker Katie Mixon in a nomination letter.

Gina Geddings, the mother of CMC patient Morgan Geddings, concurred. "She has the most giving, caring, loving heart of anyone that I know," she wrote. "She doesn't really even know how much she has helped us in such a difficult time."

Morgan wrote a nomination letter of her own, citing Ms. Burton's compassionate care, frequent visits on her days off and gifts of ice cream and pajamas. Wrote Morgan, "Lori is just a great person with a INCRDAIBLE (sic) personality!"

Mr. Kellett Awarded Honorary Degree

Samuel B. Kellett, chairman of the board of WorldNet Communications Inc. and a member of the Medical College of Georgia Foundation Inc., received an honorary Medical College of Georgia degree during the university's 2001 commencement May 4.

Mr. Kellett "has transformed into reality MCG's longtime dream of establishing endowed chairs in the Schools of Allied Health Sciences and Nursing," said Dr. Julius S. Scott Jr., interim MCG president. "Mr. Kellett's generous support significantly enhances the schools' ability to recruit nationally renowned

faculty to advance MCG's research mission."

As a member of the MCG Foundation Investment Committee, Mr. Kellett has helped substantially increase the assets of the non-profit organization that manages donations to the university. Those assets now exceed $100 million—a tenfold increase in the past decade.

Mr. Kellett co-founded Convalescent Services Inc. in 1978. The company, for which Mr. Kellett served as president, owned and operated upscale nursing facilities throughout the country. In 1996, the company was merged into Mariner Health Group Inc., a leading national provider of post-acute health care services. In his current position, Mr. Kellett oversees WorldNet Communications Inc., a company that facilitates hiring professionals through the Internet.

Mr. Kellett's daughter, Margaret (Mari) Varnado Smith, earned a master's degree from the Medical College of Georgia Department of Physical Therapy in 1999.

MCG Presents Faculty Awards

The Medical College of Georgia presented 2001 Outstanding Faculty Awards during its April 19 Faculty Assembly.

The School of Allied Health Sciences honored Dr. Biagio J. Vericella. Dr. Vericella joined MCG in 1973 as an assistant professor and has served as dean of the School of Allied Health Sciences since 1988. He has received an MCG Distinguished Service Award.

The School of Dentistry honored Dr. Wayne W. Herman, associate professor of oral diagnosis and patient services and director of MCG's Emergency Dental Service. Dr. Herman joined the faculty in 1993 and serves on the Executive Committee of the American Academy of Oral Medicine Board of Trustees.

The School of Graduate Studies honored Dr. Gerald Carrier, professor in the Department of Pharmacology and Toxicology. Dr. Carrier, who joined the faculty in 1976, is a fellow of the American College of Clinical Pharmacology. He has received two Outstanding Graduate Faculty Advisor Awards .

The School of Medicine honored Dr. Kenna S. Given, professor and chief of the Section of Plastic and Reconstructive Surgery. Dr. Given joined the faculty in 1977. He is the plastic surgery director at the Children's Medical Center, associate director of the MCG Hospital Burn Unit and medical director for surgery at the MCG Ambulatory Care Center. He is a past president of the Georgia Plastic Society and the American Association of Academic Chairmen in Plastic Surgery.

The School of Nursing honored Dr. Katherine E. Nugent, associate dean for academic and undergraduate programs. Dr. Nugent joined the faculty in 1992 and is a member of Sigma Theta Tau. She received the 1991 Katherine E. Nugent Award for Faculty Scholarship and the 1995 Katherine E. Nugent Award for Leadership.

The Robert B. Greenblatt, M.D. Library honored Marilee Creelan, instructor and head of collection services. Ms. Creelan joined the faculty in 1996 and is a distinguished member of the MLA Academy of Health Information Professionals.

3 MCG Programs Ranked Among Best in Nation

Three Medical College of Georgia graduate programs were again ranked among the nation's best in *U.S. News and World Report's* Best Graduate Schools 2002 edition, published April 2.

The School of Allied Health Sciences physical therapy program was ranked 33rd in the nation. The School of Medicine primary care program was ranked 41st and the School of Nursing master's program was ranked 46th.

Each year, *U.S. News and World Report,* a weekly news magazine, evaluates graduate programs in business, education, engineering, law and medicine. Statistical and qualitative information to determine educational excellence is gathered by surveying more than 1,000 programs and 12,000 academics and professionals. Also considered are undergraduate grade point averages, test scores of the entering class, faculty/student ratios, the number of graduates that pass professional exams and starting salaries for new graduates.

Class Notes

School of Allied Health Sciences

Kylie Williams Gertge ('90, O.T.) has begun a business in Colorado called Senior Wellness Consultants, Inc., The company provides one-on-one functional fitness programs with seniors and sets up programs for long-term care communities, mostly assisted and independent living.

School of Medicine

Dr. Mason P. Thompson ('73), associate dean for student affairs and admissions at MCG, has been elected vice chairman of the Association of American Medical Colleges Group on Student Affairs, Southern Region. His term will be followed by terms as chairman-elect and chairman of the Southern Region.

Dr. John B. Savage ('77), Augusta, has created a sculpture of punter Ray Guy. The sculpture will be used for the Ray Guy Award, honoring the country's top collegiate punter. Dr. Savage, an orthopedic surgeon, was commissioned to create the sculpture by the Greater Augusta Sports Council, which sponsors the award.

Dr. Alexis Carter ('98), Greenville, N.C., has been appointed to the College of American pathologists' Point of Care Testing Committee. The College of American Pathologists is a medical society serving nearly 16,000 physician members and the laboratory community worldwide, advocating high-quality and cost-effective patient care. It is the world's largest association composed exclusively of pathologists.

Dr. Stephen Ewer, who completed a cardiology fellowship at MCG in 1996, practices cardiology in Kennewick, Wash., and has been elected a fellow of the American College of Physicians-American Society of Internal Medicine. He serves on numerous boards and committees, including Community First Bank, the American Heart Association and the March of Dimes.

HOMECOMING 2001

Reunion dinners, a cook-out, dance and continuing-education courses were among the many activities alumni enjoyed during Homecoming 2001 held April 26-29.

CLASS REUNIONS

School of Medicine Class of 1941

School of Medicine Class of 1945 with spouses

School of Medicine Class of 1946

School of Medicine Class of 1951

School of Medicine Class of 1956

School of Medicine Class of 1961

School of Medicine Class of 1966

School of Medicine Class of 1971

CLASS REUNIONS

School of Dentistry Class of 1976

School of Medicine Class of 1976

School of Medicine Class of 1981

School of Medicine Class of 1986

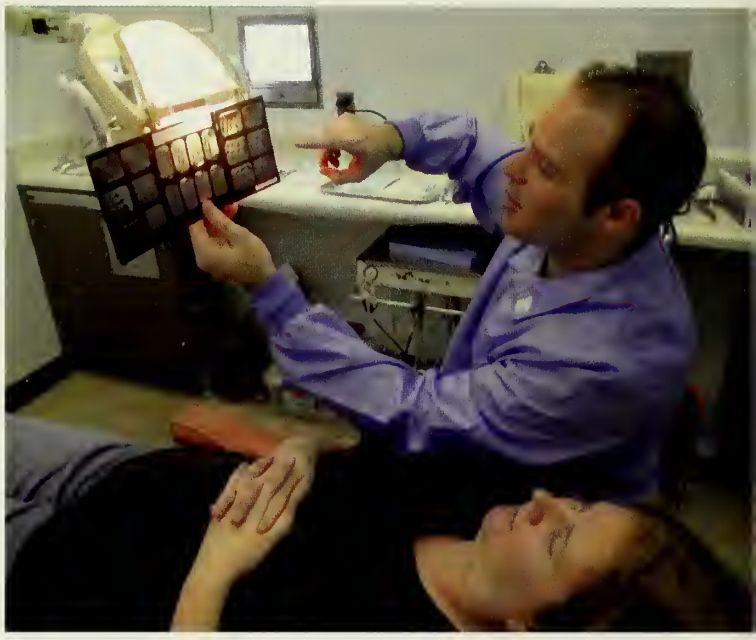
School of Medicine Class of 1991

School of Medicine Class of 1996

School of Medicine Emeritus Club

Dental Hygiene Student Likes Hands-On Challenges

Christine Hurley Deriso



Robert Nash

Ask Robert Nash about his career and you'll have to be a little more specific. Are you referring to the dental hygiene career he's just beginning? The massage therapy career he maintains concurrently? The singing career that has taken him all over the country? The brief but fulfilling stint as part of an organ and tissue procurement team?

"I'm the odd-job king," he notes with a laugh.

The only thing more impressive than his resume is the time frame in which all this activity has unfolded. He's only 23.

Growing up in Colquitt, Ga., Robert's original dream was Broadway. After high school, he joined the touring group, All-American Singers—"a very interesting life," he says—then decided the lifestyle wasn't for him.

"After my first year of college and my tour, I was having a very young midlife crisis," he says. "I'd tried a couple of things and thought, 'No, this doesn't feel right.' A friend of mine is a massage therapist, and she suggested that I give that a try."

He completed the training, then obtained his licensure in the field, which involves stimulating the soft tissues that hold bone in place. It was just the hands-on career he'd been seeking. "I know people can come to me [for a massage] and leave their problems at the door," he says. "It's also an energy-balancing activity. I can transfer some of my energy [to the client during the massage], and I end up feeling a lot more relaxed."

Massage therapy requires an extensive understanding of anatomy, a field Robert enjoys. On evenings and weekends, he works for Augusta Neuromuscular Associates as a massage therapist and as a massage clinic instructor at the Georgia Institute of Therapeutic Massage.

While in massage school, he began working for an optometrist, a job that led to his involvement in retrieving corneal tissue and eyes from donors. The extensive scientific and therapeutic expertise he was accumulating along the way helped him refine his career goals further still: He enrolled in the Medical College of Georgia Department of Associated Dental Sciences Dental Hygiene Program and earned his bachelor's degree this spring.

"I've always been drawn to dentistry; nine members of my family are in the dental field," Robert says. "I didn't really want the responsibility of running a dental office, so dental hygiene seemed just right." He hopes to obtain a graduate degree in the field, supplementing his practice with teaching and research. He also hopes to incorporate massage therapy into his practice, using neuromuscular techniques to target conditions that can result from tooth-grinding or abnormal jaw movement.

He still loves singing, "but I'm just happy singing wherever I can sing," he says, noting that his repertoire runs the gamut from pop to Puccini. "Right now, my options are open. I have my whole life ahead of me. Every time I walk through one door, it seems to lead to another."

Chairman, Interim Chairman Named

Dr. Elizabeth Kenimer, interim chairman and assistant professor in the Department of Medical Technology, has been named chairman of the department.

Dr. Kenimer earned bachelor's and master's degrees from MCG and a doctorate in adult education from the University of Georgia. She joined MCG in 1993 as an assistant professor and charge technologist in the MCG Hospital and Clinics Specialized Care Laboratory. She was named interim chairman in 2000.

She received the Georgia Society for Clinical Laboratory Sciences' 1997 President's Award and is a member of Phi Kappa Phi, the international honor society.

Also, Dr. Harold G. Smith, Associate Professor Emeritus in the Department of Physical Therapy, has been named interim chairman of the Department of Physical Therapy. He succeeds Dr. Jan Perry, who retired this spring as chairman.

Dr. Smith earned a doctorate in education from the University of Georgia and joined the MCG faculty in 1971. He has served as chief of physical therapy and acting assistant hospital administrator at MCG Hospital and Clinics. He is a past president of the Georgia State Board of Physical Therapy.

Awards Presented in School of Allied Health Sciences

The Medical College of Georgia School of Allied Health Sciences presented faculty awards during the school's April 25 Spring Faculty Assembly.

P. Joyce Larison, recently retired associate professor of medical technology, received the Outstanding Clinical Faculty Award. Ms. Larison joined the faculty in 1972 and received the 1989 CSRA Society for Medical and Laboratory Personnel Laboratorian of the Year Award, the 1987 MCG Microcomputer Competitive Award and the 1985 School of Allied Health Sciences Distinguished Faculty Service Award.

Dr. Jan F. Perry, recently retired chairwoman of the Department of Physical Therapy, received the Distinguished Service Award. Dr. Perry joined the faculty in 1978 and is a member of the Alpha Eta Honor Society, the International Alliance of Teacher Scholars and the American Physical Therapy Association.

Dr. Raymond K. Chong, assistant professor in the Department of Physical Therapy, received the Faculty Research Award. Dr. Chong has extensively researched the sensory synchrony required for the body to maintain good balance.

Also, several students in the School of Allied Health Sciences received scholarships from the school's Alumni Association. The students are Landis Laurie Coffee in the Department of Physician Assistant and Kimberly Marie Felando, Janet P. Kaufman, Kasey Lee Murphy and Melanie S. Robertson, all in the School of Associated Dental Sciences.

Chairman's Artwork on Cover of Journal

The artwork of Steve Harrison, chairman of the Medical College of Georgia Department of Medical Illustration, was displayed on the cover and inside pages of the April 2001 edition of the *Journal of Neurosurgery*.

The artwork depicts a rare traumatic giant intracranial aneurysm that appeared 25 years after a shrapnel injury to a Vietnam War veteran. The aneurysm had not shown up on previous imaging studies, but at surgery, a piece of shrapnel was found imbedded in the dome of the aneurysm. The accompanying article was submitted by MCG Section of Neurosurgery faculty.

Mr. Harrison's artwork also was on the cover of the journal in 1986 and 1994 editions.

School of Allied Health Sciences Alumni Association luncheon, Homecoming 2001

Trip to India a 'Mind-Expanding Experience'

Christine Hurley Deriso

When Rob McAlister is in the mood for a change of scenery, he has more in mind than a stroll through a nearby park. He opts for a different continent, a different culture ...a different world.

His wanderlust brought him to India Jan. 5-30, where he camped on the banks of the Ganges River and soaked in a celebration that rolls around only once every 144 years.

Mr. McAlister, an instructor in occupational therapy on the department's Columbus State University satellite campus, timed his vacation to coincide with Maha Kumbh Mela, a massive commemoration of an ancient battle between gods and demons for a pitcher, or kumbh. The celebration, popular among Hindus but open to all, occurs every 144 years. Scaled-down versions are held every 12 years. This was, literally, a once-in-a-lifetime opportunity.

"It's really the biggest religious ceremony anywhere," said Mr. McAlister.

He perceived India as a country of stunning contrasts. The people are rich in spirit but poor in material wealth. Peaceful meditation coexists

Rob McAlister

with non-stop clamor.

"Twenty-four hours a day, there's something going on," Mr. McAlister said. "There is always noise. But it's a neat atmosphere."

In fact, in some ways, India drew unlikely comparisons to places as disparate as, say, New York City or Los Angeles. "Horns are always blowing, Mr. McAlister said. "There are lots of bicycles and pedestrians on the roads. Cars take the middle lane, going in both directions, so car rides turn into a game of chicken. Right before two cars have a head-on collision, one will blow his horn, which signals the pedestrians that he's about to veer into them. They use their horns a lot."

Electricity, he said, is an iffy proposition in India. "They have constant power outages. I thought, 'This is really the Third World.' But then I came home and saw that California was going through the same thing."

He was struck by the altruism of the people he encountered. He recalls that when passersby observed he was being taken advantage of during a barter with a street vendor, they would step in on his behalf. "They would say, 'You ripped him off! Give him his money back!' And they didn't even know me."

Likewise, when someone in Mr. McAlister's group got lost, an Indian invariably stepped in to lead him to his destination, no matter how far out of his way the trip took him. "There were many examples of kindness," he said.

Sometimes, he noted with a laugh, the travelers' instructions of their destinations didn't survive the translation. "Lord knows where we would end up," he said. "But anywhere we went was an adventure."

Mr. McAlister stayed in Allahabad, an ancient city along the Ganges River in which people live very much the same way they've lived for centuries. He found himself unconsciously following their lead. For instance, he was stunned to realize that during his three-week trip, he had accumulated only 2 pounds of garbage—as much as many Americans accumulate in a day. "Their lifestyle in some ways is very ecologically responsible; they just don't have the system in place to get rid of the waste they do generate, so there is litter," he observed.

Mr. McAlister is anxious to for his next trip. "I want to visit Nepal, which I've heard is beautiful," he said. "I definitely recommend traveling to different parts of the world. Going to India was a mind-expanding experience that helped me appreciate my life."

Respiratory Therapy Student Honored

Respiratory therapy student Edith Martin has been named the Medical College of Georgia 2001 student representative for Academic Recognition Day.

Academic Recognition Day was begun in 1987 to celebrate individual academic achievement and recognition within the University System of Georgia. Every spring, the university system's colleges and universities each select a representative who exemplifies academic excellence.

Ms. Martin, who graduated summa cum laude from MCG May 4 with a bachelor's degree in respiratory therapy, was unanimously selected by faculty to receive the Department of Respiratory Therapy's 2001 Chairman's Award. "This is the most prestigious award the department gives and is only awarded when the faculty believes that a student has outstanding qualities and character," said Dr. Randy Baker, chairman of the department. "She is definitely a bright star."

She received one of six 2000-2001 national scholarships from the Lambda Beta Society, the honor society of the respiratory field. She also received the American Respiratory Care Foundation's 2000 Robert Lawrence Education Award. She was the secretary of her class.

Students Earn Scholarships

Christine Hurley Deriso

The Lambda Beta Society, the honor society of the respiratory therapy field, recently awarded six national scholarships, half of which went to Medical College of Georgia students.

The three MCG recipients are Edith Martin, Kelly Ritchie and Rachel Robertson, all of whom earned their bachelor's degrees in respiratory therapy this spring.

Ms. Martin also won the American Respiratory Care Foundation's 2000 Robert Lawrence Education Award. Aeiza Shaikh received the foundation's 2000 Morton B. Duggan Education Recognition Award. She also received the 2000 Ty Cobb Scholarship for outstanding academic achievement from the Ty Cobb Educational Foundation.

Toshica Conyers received the 2000 Ancil Lewis Financial Award from the Georgia Society for Respiratory Care.

MCG respiratory therapy students are unusually competitive for national scholarships because of extensive faculty support and the program's curriculum, according to Dr. Randy Baker, interim chairman of the Department of Respiratory Therapy. For instance, most scholarship programs require an original paper related to the field, and the paper is incorporated into the program's course work. The students also receive 720 hours of clinical experience in at least four settings during their education, Dr. Baker noted.

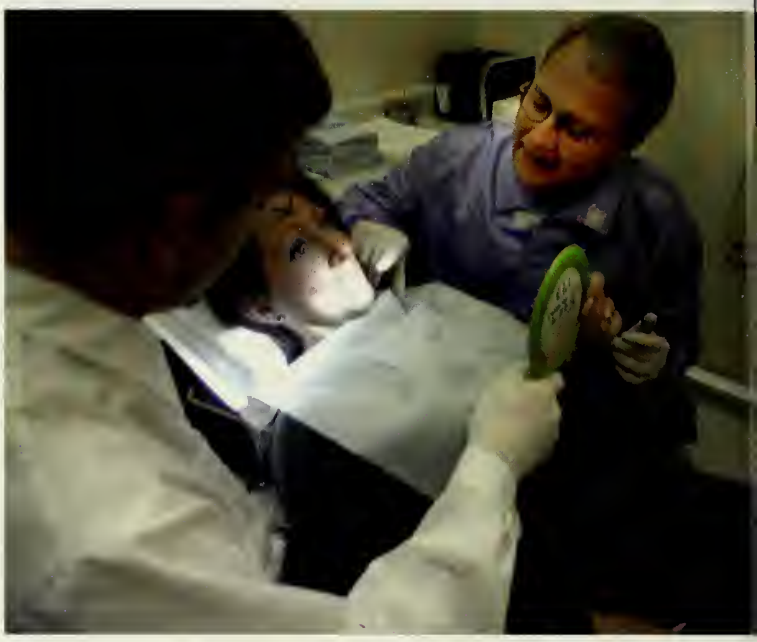
MCG respiratory therapy students also are encouraged to volunteer in the community before and during their educations. Ms. Robertson, for instance, logged 150 volunteer hours in the cardiopulmonary unit of a Savannah, Ga., hospital before enrolling in MCG's program to be of service and to learn more about the field. MCG respiratory therapy students also serve as counselors for Champ Camp, an annual day camp sponsored by the American Lung Association for children with asthma.

The students noted that their instructors are always on hand to help them prepare a scholarship application. "The faculty encourages us to go for the scholarships and makes sure we know they're available to help in any way," Ms. Shaikh said.

School of Dentistry

Alumnus Rallies After Debilitating Disease

Christine Hurley Deriso



Dr. Allen Braselton was treating patients in his Winder, Ga., dental office on a Friday in November 1998 when he noticed an odd feeling of weakness in his hands. He was mildly puzzled, but the annoyance barely registered. He completed his appointments, then locked up his office, anticipating a leisurely, uneventful weekend.

He had no idea that the strange sensation portended the worst crisis of his life. The next day, the weakness had spread throughout his body, and by that evening, he was totally paralyzed. He couldn't move a muscle; even his eyelids were frozen in immobility. His family frantically rushed him to the emergency room, wondering how such a seemingly healthy man had suddenly turned to stone.

The diagnosis was crushing. Dr. Braselton, a 1974 graduate of the Medical College of Georgia School of Dentistry, had the rare and mystifying disease, Guillain-Barre Syndrome. The disease paralyzes the body as the immune system suddenly and inexplicably declares war on myelin, a substance that forms a sheath around nerve fibers. "Basically, my immune system turned against me," Dr. Braselton recalled. "The frustrating part was that nothing moved and nothing worked." The diagnosis would spell the end of his private practice—but not the end of his dental career, thanks to MCG.

Dr. Braselton lay trapped in his motionless body for weeks, praying the treatment—plasma pheresis and extensive physical therapy—would help him regain his mobility. It was a slow and agonizing process, but gradually, his body began responding. "The plasma pheresis put the brakes on the disease," he said. "Then, it was a matter of rehabilitation and time. It made for a pretty interesting ride."

Today, Dr. Braselton looks like the picture of health but retains partial paralysis in his face, hands and ankles. His hands are usually reliable, but he simply can't risk the possibility of mishandling a dental instrument while treating a patient. He has sold his practice.

Yet he still has a wealth of experience and expertise to share, which is why Dr. Braselton has found a new home at his alma mater. He joined the faculty this summer as an assistant professor in the Department of Oral Diagnosis and Patient Services.

His service to MCG officially began after his diagnosis. When Dr. Braselton realized he could no longer maintain his practice, he began traveling to MCG two days a month from Winder to teach dental students as a volunteer. He joined the ranks of about 100 dentists throughout the state who teach at MCG periodically as volunteers.

"These are very important people to us," said Dr. Bob Comer, associate dean for patient services in the MCG School of Dentistry. "They give students a brush with reality. There's a difference between academic dentistry and private practice, and sometimes these volunteers offer a more practical perspective than we might have otherwise. It helps us a great deal to benefit from the expertise of seasoned practitioners."

At their own expense, the dentists travel to Augusta to advise and guide the students. "They demonstrate and teach," Dr. Comer said. "Before beginning, they usually

shadow a faculty member for a couple of weeks. They know the dentistry, so it's just a matter of learning the paper flow so the students can get proper credit for the instruction."

Almost as important as the expertise they impart, Dr. Comer noted, is the enthusiasm they share. "They are wonderful role models not only in terms of skill and talent, but in terms of attitude and professional satisfaction," he said.

Dr. Braselton said the enthusiasm comes naturally, especially from his vantage point, since the field of dentistry would now be closed to him without the opportunity to teach. "I love being here," he said. "I enjoy the students and watching them work with their patients. I feel like I'm learning from them as they learn from me. It's been very gratifying."

Grant Funds Study of Gingival Overgrowth

Christine Hurley Deriso

Medical College of Georgia dental researchers are trying to spare kidney transplant patients a particularly unpleasant potential consequence of their lifesaving drug regimen.

The MCG School of Dentistry has received a $398,000 grant from the Carlos and Marguerite Mason Trust to help prevent and treat gingival overgrowth, an uncontrollable proliferation of gum tissue that affects about a third of kidney transplant patients. The condition varies in severity; at its worst, patients' teeth are completely covered with excess gum tissue.

"The mechanism is unknown, but we know the condition is related to cyclosporine, an immunosuppressive drug," said Dr. Wayne Herman, associate professor in the Department of Oral Diagnosis and Patient Services.

Immunosuppressive drugs such as cyclosporine prevent the immune system from rejecting transplanted organs. Gingival overgrowth also is linked to calcium channel blockers, used to treat hypertension and cardiovascular disease, and Dilantin (phenytoin), used to treat seizures.

Those who take drugs that trigger gingival overgrowth are at particular risk of developing the condition if they have poor dental hygiene and a genetic predisposition to gingivitis, or gum inflammation, Dr. Herman said. Symptoms include discomfort, unsightly appearance and mouth odor. Malnutrition and infection also can result.

"Left untreated, the condition gets progressively worse because bacteria and plaque accumulate. They are buried under a mound of tissue," said Dr. Joseph Konzelman, associate professor in the Department of Oral Diagnosis and Patient Services.

Currently, the only treatment is surgical removal of the excess tissue. Recurrence is common.

Drs. Herman, Konzelman and their colleagues will use the grant money to test their theory that vigilant oral hygiene will prevent or lessen the severity of the condition. They will recruit 50 MCG kidney transplant patients for the two-year study. All will receive periodic dental examinations and oral hygiene instruction from Ana Thompson, a dental hygienist and the project coordinator. "I'll teach them proper brushing and flossing techniques and other information related to good oral hygiene," said Ms. Thompson, who earned her associate degree in dental hygiene from MCG.

Half of the participants also will receive regular professional dental cleanings at MCG. The other half will be advised to seek care from their regular dentists and/or hygienists.

The researchers will closely monitor the all study participants, using several instruments, including photographs, dental casts and ultrasound, to measure gingival overgrowth. They will compare the two groups to determine whether an intensive oral hygiene program prevents or minimizes the incidence of gingival overgrowth compared to routine dental care.

The researchers are working closely with MCG nephrologists, who are researching other areas of kidney disease. Much of that research is funded by the Mason Trust. "We certainly appreciate the funding," Dr. Herman said. "The Mason Trust is a wonderful organization that has been a very positive force for helping transplant patients."

Dr. Wayne Herman

Mouth Ulcers Require Specific Diagnosis

Christine Hurley Deriso

No matter how highly skilled dentists are, they won't be very effective treating mouth ulcers unless they make the right diagnosis.

Ulcers in and around the mouth can result from trau-

ma, diet, viruses, allergies, vitamin deficiencies and many others causes, most of which necessitate a different treatment plan, according to Dr. Wayne W. Herman, associate professor of oral diagnosis and patient services in the MCG School of Dentistry.

Dr. Herman discussed mouth ulcer treatment as a guest speaker for *The Cutting Edge of Oral Diagnosis in Clinical Practice*, a seminar hosted by MCG Jan. 26-27.

"[When treating mouth ulcers], try to learn about the patient and disease so you can better focus your therapy," Dr. Herman said. Dentists should determine factors such as the frequency and severity of the ulcers and any contributing factors. Patients with diseases such as HIV that compromise the immune system may suffer severely and require aggressive treatment.

"If you see several, widely spaced ulcers that occur frequently, a systemic cause is often underlying the disease process," Dr. Herman said. For instance, he cited a patient whose mouth ulcers turned out to be a symptom of Crohn's disease, a condition characterized by inflammation of the intestine.

Many patients with severe mouth ulcers are deficient in vitamin B-12, a condition easily remedied by weekly injections until the level is normalized, Dr. Herman said. Mouth ulcers also may be an allergic reaction to sodium lauryl sulfate, an ingredient in most toothpastes. "The 'anti-ulcer' toothpastes don't add anything; they just leave the sodium lauryl sulfate out," Dr. Herman said.

Lip lesions commonly referred to as fever blisters result from the herpes simplex virus. "It's a very common, everyday kind of problem," he said. "Early identification is key to treatment [with antiviral medication]. If you catch lesions early, you can almost assuredly provide effective treatment."

He also advised dentists to counsel prevention; sun exposure is a common trigger of herpes simplex outbreaks, so sun screen and wide-brimmed hats may preempt the problem.

Preemptive strikes are also advised for denture-wearers. Dentures should be removed at night and kept clean to prevent a fungal infection, another source of mouth pain.

Treatment for most forms of mouth ulcers are becoming increasingly effective and sophisticated, thanks in part to research conducted by the MCG Schools of Dentistry and Allied Health Sciences. But a correct diagnosis is the foundation for effective treatment, Dr. Herman stressed.

The Georgia chapter of the American Association for Dental Research, the MCG School of Dentistry, Fisher Scientific and Ultradent sponsored the 2001 Annual Dental Research Expo April 11 on campus. MCG dental research, covering areas including dental materials and oral cancer treatment, was displayed in a poster exhibit during the expo.

Consultant Stresses Positive Attitude

Christine Hurley Deriso

Medical College of Georgia dental students got a heavy dose March 28 of lessons that may not have been covered in school but will certainly impact their futures.

"The best way to predict the future is to design it yourself," said Rick Willeford of the Atlanta Center for Business in Dentistry. Mr. Willeford discussed business-savvy tips for dentists as the guest lecturer of the spring Lunch and Learn, sponsored by the School of Dentistry Alumni Association.

Dental students should spend time in as many different practices and settings as possible before making career choices that will affect the rest of their lives, Mr. Willeford said. "The exciting news is there's no one right way to be successful," he said. Dentists should tailor their practices around their personalities, he advised, considering factors like location and the pace of life they prefer.

Whatever choice they settle on, Mr. Willeford cautioned, "please don't do it for the money. The fun of money will wear off soon, and if you don't like what you're doing, you're stuck."

Likewise, students shouldn't assume that "the fanciest offices with the best toys are the most lucrative," he said. Fancy offices have correspondingly fancy overhead, he noted, and sometimes the most humble-looking practices are the most successful and satisfying.

Mr. Willeford also counseled the students to get a handle on unsavory details like taxes before hanging their shingle. "Don't dwell on things like taxes and overhead expenses," he said. "We don't solve these problems; we manage them. But don't ignore them, either. Set aside your projected income taxes up front. If you don't, you won't know when you've stopped spending your money and started spending Uncle Sam's."

Dentists also should plan to devote ample time to continuing education. Medical technology evolves continually, he stressed, and dentists have to satisfy their patients' expectations of cutting-edge clinical skills to stay in business.

But even more important than technical proficiency, Mr. Willeford said, are people skills. "If you want to be successful," he said, "hang around successful people with positive attitudes. Personal relationships can, in fact, be learned to some extent. You don't have to be the life of the party, but you should be pleasant and sincere. And dress well. No one ever lost a patient by being overdressed."

The more that dentists enjoy their jobs, he said, the more infectious their good moods and positive attitudes will be. "Success is getting what you want," Mr. Willeford said. "Happiness is wanting what you get."

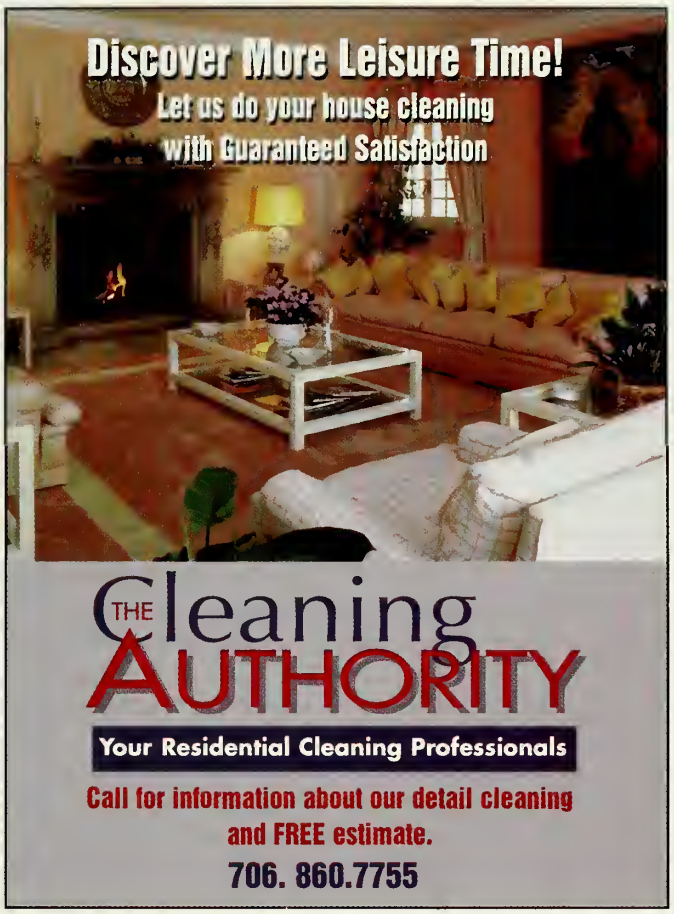
Hinman Scholarships Awarded

Several Medical College of Georgia students received scholarships from the Thomas Hinman Dental Society during the society's annual meeting March 17 in Atlanta. The awards are based on academic performance and need.

Recipients from the School of Dentistry are Oleg Eisenstein and Michelle Saylor. Recipients from the Department of Associated Dental Sciences in the School of Allied Health Sciences are Sara Archer, Janet Kaufman and Courtney Teston.

The Thomas P. Hinman Dental Society has promoted continuing education in the dental profession since 1912. It began granting student scholarships in 1986 and provides grants to dental education groups and clinics.

School of Dentistry reunion dinner, Homecoming 2001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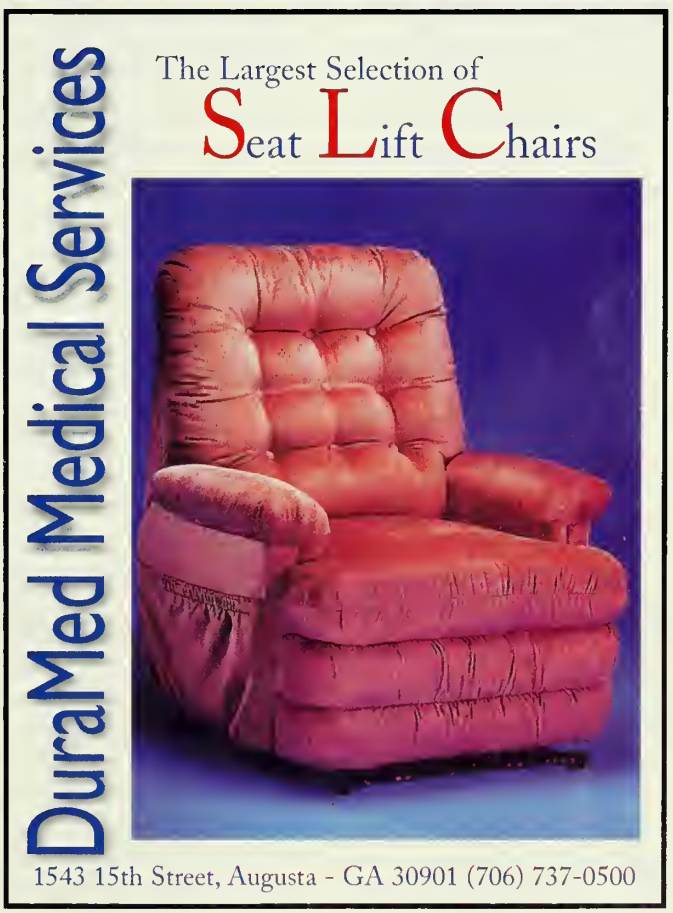


School of Graduate Studies

Alumnus Studies Roles of Astrocytes

Toni Baker

How estrogen works in the brain to control reproduction and protect neurons from death is the focus of Medical College of Georgia researchers who say that plentiful, star-shaped cells called astrocytes may hold an answer.

"Astrocytes belong to a class of brain cells called glial cells, which are nine times more prevalent than neurons in your brain," said MCG neuroscientist Darrell W. Brann, a 1990 graduate of the MCG School of Graduate Studies and the 2001 recipient of the school's Distinguished Alumnus Award.

These astrocytes were thought to have largely structural functions, such as separating and supporting neurons. "However, we believe astrocytes also can modulate the function of neurons, controlling them and communicating with them by releasing tropic factors that can protect them from cell death," Dr. Brann said.

Astrocytes seem to do this by feeding brain cells growth factors that enable them to reach out to other cells and to survive various onslaughts. Dr. Brann has shown this activity in the hypothalamus, an area of the brain critical to reproduction, and the cerebral cortex, an area critical to learning.

"Our hypothesis was that astrocytes were releasing factors that would regulate the neurons," Dr. Brann said. When he treated neurons with culture media from astrocytes, they developed long extensions, or neurites, which is one way neurons reach out to each other and communicate.

One of these factors is transforming growth factor-beta, or TGF-b. When he neutralizes TGF-b with an antibody, neurons don't respond. "We are exploring whether estrogen can regulate this novel astrocyte-TGF-b pathway to control reproduction and potentially protect the brain from insults such as stroke and neurodegenerative diseases such as Alzheimer's."

Dr. Brann has documented estrogen receptors on astrocytes, which makes them appear to be targets for estrogen action, and found the astrocytes may have an unexpected role in regulating reproductive function.

Estrogen increases the release of TGF-b from astrocytes in the hypothalamus which, in turn, stimulates the release of gonadotropin-releasing hormone, or GnRH, the brain's signal for ovulation. TGF-b also enhances connectivity of the GnRH neurons and protects them from cell death. He recently was awarded a $1.3 million, five-year grant from the National Institutes of Health's National Institute of Child Health and Human Development to further pursue that avenue.

But he also thinks estrogen may use the same astrocyte-TGF-b mechanism to protect the brain from stroke. Estrogen has been shown to reduce the stroke injury in animal models, but when Dr. Brann adds physiological levels of estrogen to neurons from the cerebral cortex, estrogen can't protect the neurons. This suggests that some other cell type is necessary to mediate the protective effect and that the cell type may be the astrocyte, he said.

"The questions we are asking are, 'How does estrogen protect?' and 'Can we find another agent with equal or better protection than estrogen, but without its well-known negative effects of potentially enhancing the risk of breast or uterine cancer?'" he said.

Now he's taking commer-

cially available selective estrogen receptor modulators called SERMs that, depending on which tissue they are in, can mimic estrogen or not, to see if they might help protect the brain. "SERMs are known to have a protective effect in the breast and bone and some even protect the uterus," he said.

He's already looked at tamoxifen, a common treatment and preventive drug for breast cancer, and plans to look at raloxifene, a common treatment for osteoporosis which also is being studied for its effectiveness in preventing breast cancer.

Like estrogen, tamoxifen may be targeting the estrogen receptors on the star-like astrocytes. "We take neurons in culture, put them in a dish by themselves, then give some sort of insult such as glutamate (an amino acid abundant in the brain and involved in key functions such as learning, memory and reproduction but which is neurotoxic at abnormally high levels) or take away serum that has growth factors which could cause the cells to die," Dr. Brann said.

If he pre-treats the cells with physiological doses of estradiol or tamoxifen—such as the amount a patient might get for breast cancer—the cells still die. But when these substances are given to an intact brain—complete with astrocytes—many cells survive. "This might be evidence that it works through this indirect pathway of the astrocytes and not through the direct pathway on the neurons," he said.

With the recent renewal grant, Dr. Brann will conduct more studies in the intact brain, trying to identify whether astrocytes, or some other type of cell, are responsible for survival of neurons and if the release of growth factor is how they do it.

"The ramifications of this astrocyte-TGF-b pathway in the processes of reproduction and neuroprotection and the precise cellular-signaling pathway whereby TGF-b regulates neurons will be major focuses of the grant," he said.

His studies may one day help explain how estrogen acts in the brain to control the ovulatory cycle, how premenopausal women are protected from stroke by estrogen and whether SERMs offer a way to extend that protection beyond menopause.

Dr. Gabridge Named Director

Toni Baker

Dr. Michael G. Gabridge, who has directed two university-based technology transfer programs, has been named director of the new Medical College of Georgia Office of Biomedical Technology Transfer.

He will help commercialize scientific discoveries at MCG, establish new biotechnology companies, support established ones and create educational programs for MCG faculty regarding technology transfer.

"We are very excited to have Dr. Gabridge here to help build and support the infrastructure that will ease scientific discoveries into the marketplace," said Dr. Matthew J. Kluger, vice president for research at MCG. "He will work with faculty, the Augusta business community and his peers across the state to help ensure that scientific discoveries at MCG benefit humankind and that potential financial rewards are captured to support future endeavors."

He comes to MCG from Nederland, Colo., where he was president and chief executive officer of Michael G. Gabridge Intellectual Property Consulting. Dr. Gabridge, a microbiologist who earned his doctorate from the University of Michigan, has four patents from his research in the areas of respiratory infections and the molecular basis for respiratory disease pathogenesis, pneumonia, receptor sites and cell and organ culture.

Drs. Matthew J. Kluger (left) and Michael G. Gabridge

Dr. Mahesh Named to Committee

Dr. Virendra B. Mahesh, Regents professor and Chairman Emeritus of the Medical College of Georgia Department of Physiology and Endocrinology, has been appointed to a two-year term on the Joint Program Committee of the American Physiological Society.

The committee plans symposia and scientific sessions for annual meetings for the 21 scientific societies comprising The Federation of American Societies for Experimental Biology as well as the society's conferences, workshops and tutorials.

Love of Art Spurs Change of Heart

Christine Hurley Deriso

Valerie Weiss's route toward her career goal has been distinctly circuitous, but she has thoroughly enjoyed the scenery along the way.

Ms. Weiss simultaneously earned her medical degree from Brown University in Providence, R.I., while earning her master's degree in medical

illustration from the Medical College of Georgia. No, she isn't a glutton for punishment, a professional student or an eccentric collector of impressive degrees. She's just a really bright woman with a lot of energy and a love of art and science.

Ms. Weiss, a native of Naples, Fla., has always loved painting. But somehow, she couldn't quite imagine parlaying that talent into a career. So she took a more pragmatic approach to her future. She enrolled in an eight-year program at Brown University that enabled her to declare the undergraduate major of her choice (visual arts), then segue seamlessly into the university's medical school.

But although her grades were excellent and her motivation high, Ms. Weiss began to sense a mismatch as her medical education unfolded. She enjoyed her courses and clinical rotations, but she realized that her heart was less in science than in art. And then there was the matter of sleep ...or, rather, the lack thereof. "On my last rotation, I was up all night every fourth night," Ms. Weiss says. "It was really rough. I can't even think when I'm sleep-deprived."

She couldn't quite envision a lifetime commitment to such a schedule, and she certainly wasn't going to commit herself less than 100 percent. So she changed course. With the Brown faculty's blessing, she applied to the MCG Department of Medical Illustration, hoping to pursue an art career that would also tap into her extensive medical knowledge. She was accepted into the program, enrolling last fall. Brown agreed to accept her first-year medical illustration courses as electives toward her medical degree, and she fast-tracked her clinical commitments, completing her last rotation during Christmas break. She received her medical degree this May, and now is completing her medical illustration degree.

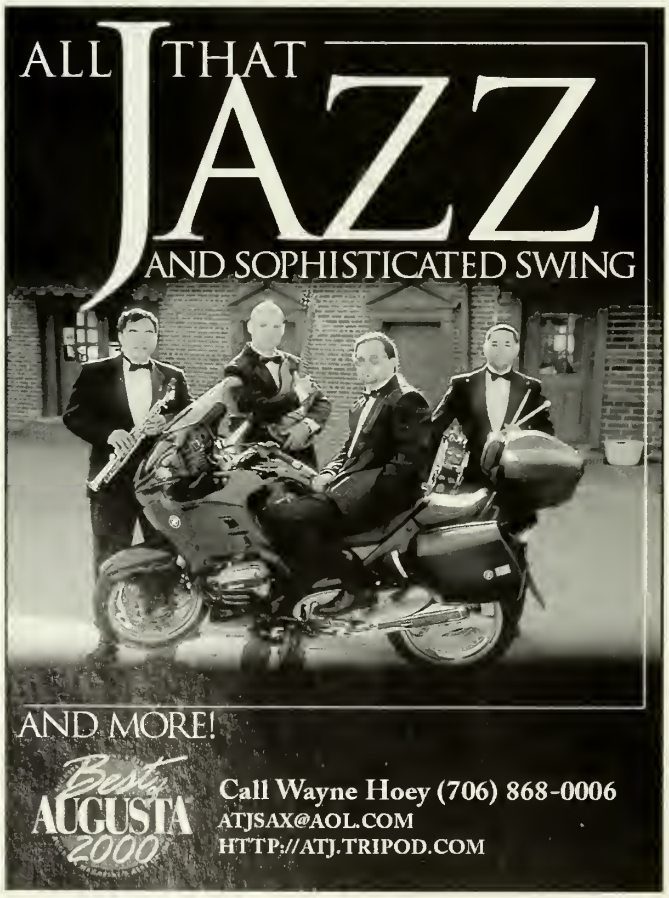
Valerie Weiss

"At one point, I thought I would pursue [both medicine and medical illustration], but after starting here, I know I want to be a medical illustrator," she says. "I'm doing something I really love."

Her family completely supports her decision—"they're the ones who encouraged me to keep up my art," she notes—and she's excited about meshing the two fields that are closest to her heart. "I understand all the medical procedures we have to deal with [in medical illustration classes], and I feel like the M.D. rounds out my education."

She knew from day one on the MCG campus that she had found her niche. "I like everything about MCG's program," she says. "It's a combination of the people, the instruction, the environment.... It's incredibly open and friendly. You walk in a studio and it's very inviting. There's a lot of sharing of ideas."

She isn't sure how she wants to apply her expertise —maybe legal art, maybe the corporate world—but she's excited about the possibilities. And she's glad her education unfolded the unorthodox way that it did. "Medical school put life in a whole new perspective," she says. "It made me a stronger person and taught me a lot: about managing my time, about people, about life."



Alumnus Studies Vessel Elasticity

Toni Baker

A new device that measures the stiffness of blood vessels is helping Medical College of Georgia doctors determine whether a hormone secreted by the vessels' lining affects their elasticity.

Endothelin, secreted by the endothelial cells inside blood vessels, is a powerful vasoconstrictor, said Dr. L. Michael Prisant (right), cardiologist and hypertension specialist at MCG. He and Dr. Adviye Ergul, a vascular biologist at MCG and the University of Georgia, are using a research version of the device, called the Cardiovascular Profilor, to determine if there is a difference between the vascular compliance or arterial elasticity of the blood vessels of blacks and whites and, if so, whether endothelin plays a role.

The Profilor uses a piezoelectric crystal to convert the mechanical movement of the blood vessel to electrical energy and determine the level of elasticity. Corresponding endothelin levels are measured from a blood sample.

"Feel how your pulse pushes against you. Now imagine if you had a lever to magnify that," said Dr. Prisant, a 1977 graduate of the MCG School of Medicine. "This device magnifies it so you can see it, then calculates elasticity based on how much the blood vessels move up and down and the blood pressure."

"We published before that endothelin is especially elevated in African-Americans with hypertension," Dr. Ergul said. "Now we want to see what the endothelin is actually doing. Right now, all we know is that the level is high. But what does that mean?"

She also is working with researchers at MCG's Georgia Prevention Institute to see whether this vasoconstrictor contributes to the development of hypertension; the work with Dr. Prisant focuses more on its potential role in maintaining elevated pressure.

Previous studies at MCG and elsewhere using the Profilor have documented that reduced vascular elasticity goes hand in hand with hypertension. It's well-documented that blacks with hypertension typically have more severe cases and get the disease earlier in life.

Drs. Prisant and Ergul and study coordinator Dena Jupin are using the research version of the Cardiovascular Profilor—a similar version was recently approved by the Food and Drug Administration—to look at four patient populations: blacks with normal blood pressure, hypertensive blacks on no medication and the same two categories of whites.

Previous studies required for FDA approval also compared four populations: adults without hypertension or a family history of the disease, adults without hypertension but with a family history, hypertensives whose blood pressure was under control and hypertensives without good control. MCG was one of three centers to determine that each group had progressively less elasticity; the uncontrolled hypertensives had the least-elastic blood vessels.

Another study is comparing different ways of using the Cardiovascular Profilor. It is recommended that the blood pressure cuff be placed on the left arm and the transducer with the crystal be placed on the right. But MCG is looking at whether the arm matters by swapping the recommended location as well as putting both devices on one arm. This study provides additional information about how best to use the Profilor and

may benefit patients who have medical conditions that prohibit using one arm, Dr. Prisant said.

Planned studies using the device will explore the impact of two popular antihypertensive drugs on the flexibility of blood vessels.

"This new device gives us a way to look directly at the blood vessel, which is the target for all cardiovascular risk factors," Dr. Prisant said. He hopes it will ultimately provide more targeted blood pressure treatment. "Right now, all epidemiologic data regarding hypertension are based on office measurement of blood pressure. From looking at large numbers of patients, we know the general rule is the higher the blood pressure, the greater the incidence of cardiovascular events. But there are a lot of things we don't understand, and what is normal blood pressure for you may not be normal for me."

And, evidence is building that elasticity of blood vessels may be key to whether an elevated reading from a blood pressure cuff translates into a significant risk factor for cardiovascular disease.

"We know that if you have a normal blood pressure, but you have a first-degree relative who has high blood pressure, your blood vessels are less elastic," Ms. Jupin said. Also, smokers and diabetics typically have less elastic blood vessels, Dr. Prisant said.

Even with the accumulating information about the importance of elasticity, doctors commonly prescribe antihypertensives to patients with a documented, elevated blood pressure, using the standard cuff alone. But the ability to look directly at blood vessels may one day better predict who would benefit the most from medication to regulate blood pressure. "This may be the future," Dr. Prisant said.

School Receives Full Accreditation

Toni Baker

The Medical College of Georgia School of Medicine has received full accreditation from the Liaison Committee on Medical Education, the accrediting body for the country's medical schools.

"You cannot get a stronger endorsement," Dr. Ruth-Marie Fincher, vice dean for academic affairs, said of the LCME's validation of the school's educational mission. "I believe this is an important statement about the commitment and support of the faculty to medical student education."

Accreditation follows a two-year self-study and a February site visit from an LCME evaluation team. "Our site visit occurred with an interim president, interim dean and six interim chairmen," Dr. Fincher said. "To receive full accreditation with so many changes still under way at our institution is truly remarkable and a tremendous compliment to not only our full-time faculty, but to the clinicians who volunteer teaching time as well. This is a very strong endorsement regarding the integrity and commitment of the instructional programs in the School of Medicine."

As is the norm, School of Medicine officials will update the LCME on key issues, including immediate notification of the selection of a permanent dean. Also, the dean will submit a report by March 1, 2003 on transitional issues such as clarification of the roles and responsibilities of the offices of dean and senior vice president for clinical activities and documentation of any changes that may result in the relationship between the medical school, MCG Health, Inc., and the Physicians Practice Group.

"As the senior administrative system evolves under the leadership of our new president, Dr. Daniel W. Rahn, the role, responsibility and authority of the dean of the School of Medicine as well as the deans of the other schools will evolve as well," Dr. Fincher said. "The LCME wants to ensure that the medical school dean has significant impact and authority with respect to the clinical enterprise as well as the academic enterprise, because the clinical enterprise plays such a critical role in the education of our students."

Other key areas for updating at the two-year interval include changes in the curriculum. Dr. Fincher expects an "evolution, not a revolution" in medical education as additional changes occur to ensure that students learn the dynamic profession they will practice.

One major change already has occurred; the *Essentials of Clinical Medicine Course,* which revamped key elements of the first two years of medical school, is completing its first full year of operation. The course is not dramatically dif-

MCG President-Designate Daniel W. Rahn addresses School of Medicine alumni attendees, Homecoming 2001

School of Medicine dinner, Homecoming 2001

ferent in content from that of multiple courses from years past, but it "recasts, synthesizes and updates our approach and content of the fundamental underpinnings of the preparation for the practice of medicine," Dr. Fincher said.

The course uses diverse approaches to teaching, including traditional lectures, small-group discussions and interaction with actors portraying patients.

Other areas on which the LCME will be updated include student and faculty diversity, quality control of clinical experiences and the effects of MCG's early-retirement program on the school's educational and research activities.

Rural Physician Remembers Medical Practice

Katja Sipple

Dr. Katherine McMillan Hendry's childhood wish was to become a medical missionary. She was inspired by her physician grandfather and great-uncles and her parochial school in Atlanta, where many of the teachers were missionaries on their way to or from a foreign country.

"I was very impressed by the missionaries and the stories they told, so I decided to become a medical missionary, and finally see all these distant and exciting places," Dr. Hendry said. "All my female relatives had been school teachers, and my father only agreed to send me to medical school only if I promised to stay in the United States. 'There is plenty of missionary work for you to do here,' he told me."

In 1931, Dr. Hendry enrolled at the University of Georgia to take her pre-medical courses. In fall 1934, she started medical school at the Medical College of Georgia as the only woman in the freshman class. She boarded with the Trowbridge family on 15th Street, and often visited Wong's Cafe on Laney-Walker Boulevard. Medical school was a new and different environment for her, after spending the previous three years in a sorority house on the University of Georgia campus, and free time was a rarity. Nevertheless, Dr. Hendry enjoyed the weekly Saturday dances, picnics and visits to the picture show. "We [medical students] were quite unpopular at the picture show, because we always smelled of formaldehyde during our first year," the 89-year-old physician remembered.

Dr. Hendry was one of only two female students, and her fellow classmates did not want to be teamed up with a girl for the anatomy course. "I ended up on a team with two Jewish boys and another fellow, who was a new bridegroom. He was so in love with his wife that he could hardly concentrate on his studies, and during a final exam he put the lung in upside down," she recalled.

An important part of medical training is clinical pharmacology, and MCG students were sent to the poorer neighborhoods of Augusta to practice prescription-writing and proper diagnosis. All prescriptions had to be filled at the MCG pharmacy, so that the pharmacist could control the medication and the dosage. "The senior pharmacist had a reputation for being very strict and rather sarcastic, and he told one of my classmates: 'Congratulations! You just killed your first patient!'" Dr. Hendry said laughing.

During one of her calls, she found out that a little boy was very sick and needed immediate medical assistance. Because telephones were not readily available, she gratefully accepted when two women invited her to use the phone in their house to call an ambulance. Unfortunately, Dr. Hendry did not know that the building was a brothel and the two women were prostitutes. "I was teased for a long time after that incident, and my classmates always reminded me of my friends at the brothel."

Medical school was hard work, though, and Dr. Hendry realized how hard it was when she had to attend urology clinic. Her female classmate had refused to do clinical urology, because she considered it unfit for a Southern lady to examine male patients. "The professors and residents were not happy with her, so when my turn came, I got all the difficult and complicated cases," commented Dr. Hendry.

Immediately after graduating and receiving her M.D. in 1938, she and her fiancé,

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fellow classmate Dr. William Hendry, eloped in Aiken, S.C. She completed an internship at Columbia Hospital in Columbia, S.C., where she treated private patients in the new part of the hospital. Although she had been worried about getting an internship because the local hospitals had a reputation for not liking women physicians, her professional expertise made the experience pleasant.

Dr. Hendry finished her training in 1939 and moved to her husband's hometown, Blackshear, Ga., where the young couple joined the Hendry family practice. "The little towns in Georgia back then did not see a need for a doctor, and my father-in-law was concerned that the practice could not sustain the three of us, but everything worked out well," Dr. Hendry remembered.

When the United States entered World War II, Dr. Hendry's husband joined the U.S. Army and was sent to the South Pacific, while she continued to practice general medicine in rural Georgia.

In 1953, Blackshear opened a hospital and Dr. Hendry was offered a job as an anestheologist. "I went to Chicago to take a course in anesthesia to perform the job at the local hospital," she said. "I enjoyed the work, although I always preferred general practice, but one morning, in 1978, I woke up and realized that I wasn't happy anymore, so I just retired from the medical profession." She quickly added that despite her decision to retire, she never regretted entering the medical profession, and always felt sure that it was the right choice for her.

"Medicine is just not the same as it used to be; there are no regular hours, but we were accustomed to be called in the middle of the night and to make house calls," Dr. Hendry reminisced. "Now it's much more impersonal, and doctors and patients don't have close contact anymore."

For a while, Dr. Hendry continued to work as a consultant for the Georgia Medical Care Foundation and inspected nursing homes to ensure that federal and state hygiene and care standards were kept.

Dr. Hendry still lives in Blackshear, although she has recently moved to a smaller house that is decorated with her paintings. She and her dog, Elvis, are enjoying retirement.

Dr. Steflik Dies

Dr. David E. Steflik, professor of surgery and director of research for the Medical College of Georgia Section of Orthopaedic Surgery, died March 23.

Dr. Steflik joined the MCG faculty in 1979 as a senior research associate in the School of Dentistry and became an assistant professor in 1984. He was named senior research scientist and director of Laboratory and Research Services in 1988 and associate professor of oral pathology and director of the Implantology Section in 1990. Dr. Steflik also served as professor of cell biology-anatomy in the School of Graduate Studies and held an appointment with the Department of Veterans Affairs Medical Center. He received appointments in the Departments of Surgery and Cell Biology and Anatomy in the School of Medicine in 1996 when he became director of orthopaedic research and associate professor of oral surgery.

Dr. Steflik earned a bachelor's degree in biology from the University of Pennsylvania and master's and doctoral degrees from the University of Georgia. He was a charter member of the Scientific Advisory Board of the Implant Dentistry Research and Education Foundation and received the 2000 Isaiah Lew Memorial Research Award.

Web Program Outlines Research Guidelines

Toni Baker

The dynamic, somewhat overwhelming world of rules and regulations that directs clinical research has found a comfortable fit in the interactive world of the Web.

"The broader perspective for me was building a valuable resource that everyone has at their fingertips," said Laurie G. Landrum (right), clinical trials compliance coordinator who has shaped the Web-based clinical research education program at the Medical College of Georgia.

Mrs. Landrum, a 1984 MCG School of Nursing graduate with a master's degree in administration, has transformed the maze of federal rules and regulations into a four-tiered teaching and testing program for researchers and study coordinators that has become a gold standard in the field.

The tiers are an *Overview of Ethics and Regulatory Requirements,* a historical perspective of clinical research and its boundaries; *Behavioral Research,* which explores how to conduct behavioral studies; *Biomedical Research,* when human-derived materials are used; and *FDA-Regulated Research,* when investigational drugs and devices are used in patients.

Mrs. Landrum has spent the last year building and fine-tuning the program that not only spells out the details of federal regulations of human research but provides hundreds of related links. "I used every campus resource I could find," she said. Content and corresponding test questions were developed with the help of faculty members; key to the process was Dr. David Flannery—a member of the Family in Community Test Development Committee 4 of the National Board of Medical Examiners—who reviewed all test questions. The Office of Educational Design and Development helped design the program. The final product was reviewed and approved by the MCG Deans' Council.

"We put a lot of resources into the Web program that did not have to be there but would be valuable to have," Mrs. Landrum said. "For instance, if a study coordinator needs to convert an informed consent document or other patient education materials into another language, we have built into the program any available Web resource for translation of documents. We also have resources to translate them back to confirm that they are correct."

The program takes the user straight to Georgia State Code requirements for informed consent when necessary. It has voluminous references as well for users who want to review the literature on research-related topics. "We must have 600 links to relevant literature. We update periodically as needed. We try to include resources that might be interesting or helpful," Mrs. Landrum said.

MCG's first approach to education on this topic was the classroom. "Even though classes were offered for the past four years, they really didn't reach everyone the way we hoped they would," Mrs. Landrum said. The Web-based approach ensured that everyone received the same information and provided flexibility for upgrades and growth.

Disseminating accurate, consistent information is vital, Ms. Landrum said, to ensure compliance with federal research rules. Groups such as the Food and Drug

MCG President-Designate Daniel W. Rahn and MCG Interim President Julius S. Scott Jr. (center) with 2001 Distinguished Alumni Elizabeth Pond (from left), W.J. Walker Jr., Darrell W. Brann, Joseph P. Bailey Jr. and Nancy Lavin

Administration and Department of Health and Human Services are major federal research regulators and funding allocators; all MCG studies must comply with their regulations regardless of funding source.

Consistent information also is important because MCG policy requires that researchers and study coordinators periodically review and pass research-related sections of the Clinical Research Education Program.

Another benefit, she noted, is the convenience of the Internet for the university's some 100 study coordinators and approximately 450 active clinical investigators, including faculty, students and residents.

MCG is seeking accreditation for the program from the Association of Clinical Research Professionals as an outside assessment of the program's quality.

For more information about the Clinical Research Education Program, visit www.mcg.edu/research/octc.

Dearing Clinic Provides Free Health Care

Katja Sipple

Visitors to Dearing, Ga. are greeted by wooden houses, a small diner and the police and fire stations that line Main Street. The church is the center of the town's spiritual and social life. Last November, it also became the new location of a free, part-time clinic providing free primary health care.

"Dearing is about 30 miles west of Augusta and people do not have direct and adequate access to health care providers," said Dr. Saundra Turner, a family nurse practitioner and associate professor in the Medical College of Georgia School of Nursing. She realized health care was not readily available to the residents when she started working at Dearing Elementary School in January 2000 to give vision and hearing tests, medications, health promotion classes and a health fair. When her involvement with the school stopped four months later, the idea of a permanent clinic was born.

The parish offered a room in the basement of the church and some of the members are volunteering to help greet patients. Dr. Turner treats about nine to 10 patients between 2:30 and 6 p.m. every Monday. "The reception had been rather slow until the word got out, but now everybody knows that we are here," Dr. Turner said. "[Typical problems are] hypertension, upper-respiratory infections like common colds and bronchitis and urinary tract infections." She plans to expand the clinic's services and move to a new building—donated by Dearing Baptist Church—which is being renovated and should be operational this fall.

With the help of the owner of Amigo's Restaurant in Thomson, the clinic wants to reach the area's large Hispanic population, many of whom lack health insurance and access to basic health care. "The language barrier is a problem, but we already have a draft for a poster in Spanish that advertises the clinic and its services and [the owner of Amigo's Restaurant] will translate for us." The clinic is also supported by the McDuffie County Partners for Success, a grant-funded, nonprofit community collaboration that includes representatives from local business, government, public health and advocacy organizations.

Registered nurses in MCG's R.N.-to-B.S.N. program use the clinic for clinical training, while other undergraduate students organize health education classes and CPR courses in the community. Linda Doyle, a R.N.-to-B.S.N. student, chose to do her practicum in community leadership and management. "I have been able to work with [Dr. Turner] on the development of the clinic and networking with community leaders to establish support for the clinic," she said. "The experience has provided me with the focus that the community accepts nurses as extremely knowledgeable leaders in pre-

ventive health care."

"One of our graduate students in the family nurse practitioner program is helping me with patient treatment," said Dr. Turner. "I have even received a call from an interested medical student; it is becoming a truly interdisciplinary project."

Nurse Practitioner Student Honored

Katja Sipple

Gena Markwalter is the first recipient of the Medical College of Georgia School of Nursing 2001 Outstanding Nurse Practitioner Graduate Student Award. This new award honors academic excellence, extracurricular activities and professional competency.

"Gena has demonstrated excellence in the pursuit of both the art and science of nursing. She not only has the highest grade point average in her class, she has also received superb clinical evaluations from faculty and clinical preceptors [and] exhibited leadership skills," said Jeannette Andrews, an instructor in the School of Nursing, who nominated Ms. Markwalter for the award.

Ms. Markwalter, a 1996 nursing graduate of Georgia College in Milledgeville, Ga., earned a master's degree in MCG's family nurse practitioner program this spring. While earning her degree, she worked as a registered nurse at Augusta's University Hospital.

During the three-year program, Ms. Markwalter completed a clinical rotation at the Department of Veterans Affairs Medical Center and three additional rotations in rural clinics across South Carolina. "The VA is very supportive of nurse practitioners and employs us in the way we've been trained: as primary care providers who focus on health promotion and disease prevention. I very much enjoy working with adult patients, perhaps even more than with pediatric patients, because that's where my experience is," she said. "I have previously worked with heart patients at Macon Medical Center and at University Hospital."

Ms. Markwalter, who helped plan the Advanced Practice Nursing Conference in Augusta last February and is running for office as vice president of the 10th district of the Georgia Nurses Association, is also interested in working with mentally retarded patients. During her last two semesters at MCG, she completed an independent study project under the guidance of Ms. Andrews and Maureen Dever-Bumba, director of the nurse practitioner program. This project culminated in an article, "The Mentally Retarded Patient: An Approach to Care," which is being reviewed by the Nurse Practitioner Journal. Ms. Markwalter was inspired by her older sister, who suffers from mental retardation. "I was able to see firsthand the health care gaps for mentally retarded people, because I was always very involved in my sister's life and activities, including her participation in the Special Olympics."

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